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EMBELLISHMENTS.

January.—Frontispiece and three engraved supplements. By J. H. GARO, Boston, Mass. Engraved supplements from photographs by OLIVER LIPPINCOTT, New York, and F. ERNST ZIMMERMAN, Boston, Mass.

February.—Frontispiece from photograph by HAROLD CAZNEAUX. Engraved supplements from photographs by CLEO S. BOURGEOIS, RUDOLPH DUHRKOOP, J. STRAUSS, MRS. W. W. PEARCE, and SHERWELL ELLIS.

March.—Frontispiece. By MISS BESSIE BUEHRMAN, New York. Engraved supplements from photographs by F. W. TYLER, New York; GRACE CHANDLER HORN, Petoskey, Mich.; and LOUIS R. BOSTWICK, Omaha, Neb.

April.—Frontispiece and four engraved supplements from photographs by EARLE, New York. Four poses engraved from photographs by GRAINER, Munich.

May.—Frontispiece and engraved supplement from photographs by MORGAN STUDIO, Aberdeen, Scotland. Engraved supplements from photographs by ENDEAN, New York, and MISHKIN STUDIO, New York.

June.—Frontispiece engraved from photograph by MEREDITH JANVIER, Baltimore, Md. Engraved supplements from photographs by E. L. MIX, New York, and engraved supplements from oil paintings by JOHN COLLIER and H. G. RIVIERE, London, Eng.

July.—Frontispiece and engraved supplement from photographs by J. H. GARO, Boston, Mass. Engraved supplements from photographs by BRADLEY STUDIOS, New York, and NEW PHOTOGRAPHIC COMPANY, Berlin.

August.—Frontispiece and engraved supplements by the CAMP ART COMPANY, Jamestown, N. Y. Engraved supplement from a photograph by JAMES HUNTINGTON, Brooklyn, N. Y.

September.—Frontispiece engraved from a photograph by CHARLES L. LEWIS, Dayton, Ohio. Engraved supplements by MANDELKERN STUDIO, New York.

October.—Frontispiece. Engraved from a photograph by GEORGE GRAHAM HOLLOWAY, Terre Haute, Ind. Engraved supplements from photographs by STEARNS and WILDERMUTH, Wilkes-Barre, Pa., and ROBSON'S STUDIO, Petrolia, Ont.

November.—Frontispiece and engraved supplements from photographs by MEREDITH JANVIER, Baltimore, Md.

December.—Frontispiece and engraved supplements from photographs by ARNOLD GENTHE, San Francisco, Cal.

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WILSON'S PHOTOGRAPHIC MAGAZINE

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THE NATIONAL CONVENTION AND OTHER MATTERS.

Some Thoughts Suggested by the National Photographers' Convention —The Late Louis F. Prang, a Pioneer in Art Education— American Photographs Lack Distinction—Need of an American School of Photography.

BY THOMAS HARRISON CUMMINGS.

THE National Photographers' Convention, held recently in Rochester, N. Y., marks the twenty-ninth gathering of this body and directs public attention anew to the wonderful strides the profession has made since the days of Daguerre and Fox Talbot.

Daguerre's process, first made known in 1839, consisted merely in exposing a metal plate covered with iodide of silver, for a certain length of time, in a small box. This box, or camera, was fitted with a lens that threw the image on the metal plate. The plate then, being sensitive to the light rays, received an impression of the image, which was developed in its turn, by taking the plate to a dark room and there exposing it to a mercury vapor bath. The result was a positive image or an impression upon the metallic plate. Today the process is much simpler and less expensive. From this vague suggestion of an image on a metallic plate, photography has now grown to the rich carbon or platinum print of today, technically superb and artistically well nigh perfect, sometimes as beautiful as anything the painters can give—composition, tone, color, combined to produce beauty; the arrangement of lines, the development of curves, the massing of light and shade just as an Italian master would compose a painting in the fifteenth century. Indeed, it may be claimed that some of the later photographs from the hands of such master photographers as Steichen, MacDonald, Histed, Kasebier, Eickemeyer, Hollinger, Hoyt, Falk, and Core, of New York; Strauss, of St. Louis; Stein, of Milwaukee; Goldensky, of Philadelphia; Garo and Pierce, Boston, and photographers of this type, have all the qualities of paintings minus perhaps only the color.

In making this statement we do not forget the beauty and value of the early

daguerreotypes, because, in the beginning, with the long exposure necessary for this process, any distinct striving after artistic effects was hardly possible. On the other hand, for pure beauty, some of these daguerreotypes of the early days can be ranked among the finest portraits ever taken by photography. As Mr. Clements, formerly editor of the Boston *Transcript*, in his lecture claims to prove, they stand without a peer among the modern photographs. However this may be, the fact remains that, as compared with the work of today, the creative imagination of the artist is not so evident in the early daguerreotypes as in the modern photographic print.

Why is this so? Because in creating any work of art the artist must first think of his subject in a certain effect or design. In photography he must think of his subject in lights and shades, beauty of line, etc., and, having created the effect in his own mind, he then takes its picture. In this way the creative imagination comes into photography with design, and when they both come into any art that art becomes a fine art.

The examples of professional photography produced by the above-named artists today have all been carefully planned, thought out, and designed by the makers. Their pictures have been designed as a poem, symphony, or house might be designed. For design is the basis of every form of art expression. It brings abstract ideas into organic form, and the value of design in picture-making lies in the fact that it makes good the conception of the photographer in the picture.

Three things, however, are necessary to make the design successful. First, the idea must be present. Secondly, the artist must have a right technical knowledge of the materials through which his idea is expressed. Thirdly, he must know the fundamental principles of design itself if beauty is to be the result.

In all these particulars the representative professionals whose names are cited above have excelled. They are masters of photographic technique and design. Their pictures are strikingly original as a whole, full of graceful lines and soft touches of light and shade. Their feeling for balance and spacing is well nigh perfect. Their work is broad and simple, and, as any one can see, full of grace and refinement that in no way lessens the artistic strength of their composition. Whether it be the result of genius or of craftsmanship or of both combined, they seem to have a genius for seeing and representing their sitters in a dignified and impressive way. This gift lends power and distinction and an indefinable charm to whatever they touch, and marks the difference between the master and the craftsman in photography or in any art. Such men are interesting and helpful, to say the least. By getting away from conventional portraiture they have enlarged the horizon, improved the work, and leavened the whole mass of the profession.

Twenty-five years ago the average layman in this country knew little about art and less about photography, while the average photographer was about on the same level; but today, thanks to the magazines, the facilities of the fine art museums, the public libraries, and especially to the elementary study of art in the public schools, the public has acquired a larger conception of the possibilities of art and the photographer a new insight into the strong and beautiful ways of photography. When Napoleon decreed, a hundred years ago, that every child in the schools of France should be taught to draw, he gave such an impetus to the artistic life of France that in this respect no nation has since approached.

her. Today the Paris Salon is the highest authority in the world on art matters, and the nations pay tribute to the French genius by going there for their inspiration and enrolling themselves for study under its great masters.

A short time ago there died in Los Angeles, Cal., almost unheralded and unnoticed, a man who did for us what Napoleon did for artistic life in France. Louis F. Prang was an art publisher in Boston thirty years ago. Besides being an artist, he was an accomplished lithographer, and he was one of the earliest printers to work from the stone in colors. At his studios in Roxbury he turned out some of the finest reproductions from the Old Masters that the world has ever seen. Like all great leaders, Mr. Prang had the faculty of gathering strong people around him and inspiring them with his enthusiasm. So it came about that a course of drawing was planned for the public schools of Boston. Walter Dean, John Clark, Mary Dana Hicks, Hannah Carter, Miss Emery, Edith Clark, are names that will occur to those familiar with the early art educational movement of the Boston schools. They were the founders of the Prang Educational Society that, later on, evolved a complete series of text-books for teaching advanced drawing in the public schools. When the Prang system of art study was introduced into the Boston schools, over thirty years ago, the first serious step was made toward popularizing the study of art in America. Later, it spread over the whole country, and its progress has since been continuous and rapid. The children of those days are the men and women of today. Many of them understand and appreciate the beauty of line, the meaning of composition and pose, and the value of light and shade in pictures. Their standards of excellence are higher than ever before.

This will explain why the photographer today must make better pictures, because the public is more fastidious and more exacting than ever before. The photographer must study and practise art today if he would succeed in his profession. For this reason, photographers generally, and indeed the whole nation, owe a debt of gratitude to this simple German lithographer and artist whose name is inseparably connected with the beginning, at least, of organized art education in America. This tardy tribute to his memory is none the less sincere because so well deserved. The photograph of Mr. Prang shows him in a characteristic pose, and was made by his nephew, F. Ernst Zimmerman, a Back Bay photographer. It is an excellent likeness, and is the last picture that he had taken before going West some months ago.

In every representative gathering of American photographs, like this Rochester Convention, there is always one defect apparent, and that is, many of the portraits lack distinction. The artist-photographer who aspires to produce something more than a mere likeness in his portrait study must set himself first to find that which is really distinctive in his subject, and if his subject has no distinction that appeals to him, the picture should not be offered as a sample of photographic art. The painters can teach him many things in this connection. Sargent's pictures always have distinction. Abbey's fine pictures have a dignity and repose that is very striking. Millet's "Shepherdess" and "The Sowers," with their bodies bent low with toil, prove that nearly every human being has some outline of form, whether moving or in repose, that appeals to us as being distinctive. Whistler's portrait of his mother shows better than words can tell the truly

beautiful American life that we all appreciate and love. There is the plain living and high thinking, the simple life of honored age filled with love of books, repose, and gentle refinement. Garo's "Portrait of a Lady," which accompanies this article, is an exquisite conception, full of dignity and grace. The three-quarter length figure in a sitting posture is a new and original pose, and indicates the boldness of the artist and the firm grasp he has on the principles of his art; a willowly figure wrapped in loose draperies and crowned with a head and face beaming with intelligence and sympathy. The poise of the head, the flowing lines of the big hat, and the waving hair furnish a fine setting for the face. Indeed, it would appear as if the studios had set a new fashion in the big picture hat and the low-necked dress, as it is a combination that seems to be very popular just now among the sitters for pictures. His portraits of the Misses Lawson, of Dreamwold, daughters of Mr. Thomas Lawson, illustrate this point and emphasize the charm and beauty of young womanhood. But the point we wish to make in this connection is that this picture of the lady by Garo has distinction, and is unmistakably the portrait of an American woman.

Some great writer has said that the salvation of all art lies in the saving sense of nationalism. And today, if more American photographers like Garo would do something in photography that was distinctive, regardless of whether it was right in Paris or in London, we would soon see the beginning of a national school of photography in America.

The average professional photographer in this country today does not properly understand American life as he should, and therefore does not recognize the lines and motions of such a life. He makes a picture of what he sees, but his vision is not clear. He misses what is distinctively American, and the one touch that would differentiate his picture from that of others, and idealize it, he misses.

The English, French, and German artists do these things differently, and better than we do, because they go back to first principles in their analysis and study of the sitter. By this means they catch what is distinctive, and reproduce it, each in his own way. Hence we have national schools in photography in England, France, Germany, Belgium, and Italy, which the American photographer would do well to study.

There is a story, attributed to General Washington, of a Revolutionary soldier who went into an inn to get a drink. The landlord, who was a little penurious, handed him a wineglass about half the usual size. When the man had swallowed the contents in one gulp, the landlord turned to him and said, "That glass you have just drunk from is forty years old." "Well," said the thirsty soldier, contemplating its diminutive size and smacking his lips, "It is the smallest thing for its age that I ever saw."

Now, photography is seventy years old; but, unlike the wineglass, it is the biggest thing for its age that you ever saw. It took painting a thousand years, and the arts of wood engraving and etching each five hundred years, to secure recognition from the world as fine arts. But photography, in seventy years, has risen to the same level, and, if we may judge the future by the past, it bids fair to distance all the other mediums in the field of art expression.

LIGHTNING PROCESSES.

An amateur photographer showed us the other day an excellent mounted bromide print, expressing, as he did so, great surprise at the quickness with which it was produced. A number of persons were photographed before they set out for a drive of some three hours' duration. and on their return these mounted copies were offered them for sale. The amateur worker who is accustomed, perhaps, to allow three hours to elapse between starting to develop a negative and putting it in the rack to drain and dry, may well wonder how it is possible to compress everything, including the production, drying, and mounting of the print into this short time; and as there may be occasions when he too would like to be able to do work almost if not quite as quickly, some of the stages at which time may be saved may be pointed out.

Before doing this, however, it will be well to note that, although for some purposes these "lightning prints," as they have been called, will do just as well as those produced more deliberately, where the lasting character of the print is concerned, its fixing and washing, at any rate, should not be hurried over too rapidly, whatever may be done in other directions in the way of saving time.

Time Saved in Development.

We will assume that the photographer has an exposed plate in his dark slide, from which he is anxious to obtain a finished print, for press purposes, let us suppose, in the shortest possible time. If minutes are of importance he will use a powerful and quick-acting developer, and will take care that it is not diluted any more than is necessary to prevent fog. The favorite for this purpose seems to be metol-hydrokinone, but the Imperial pyro-metol formula, ortol, and amidol, all have their supporters.

A plate may be developed in considerably less than a minute; but such haste as that is to be deprecated, as it seems that the developer is too rapid to be under control. Such a degree of concentration and alkalinity as allows the plate to be fully developed in from two to three minutes is best, and gives opportunity for determining with sufficient accuracy how far to carry the action of the developer.

There is no reason why the negative should be fogged because the developer is a quick-acting one; and if there is any sign of fog on its exposed edges it is an indication that the developer is too strong in alkali for that particular make of plate. The alkali should be reduced, and no attempt made to prevent the fog by adding bromide. In fact, it is not unusual to find negatives developed very quickly to be freer from fog rather than the reverse, owing to the much shorter time they are likely to be exposed to the dark-room light. Where the maker gives a metol-hydrokinone formula for his plates, the developer can usually be made more rapid merely by using less water. One must see, also, that it is not used at too cold a temperature.

No Need to Fix the Plate.

All said and done, there is not much opportunity for time-saving in development, but at the next stage things are very different. There is no immediate

need to fix the negative before printing from it, although if there is time enough it is well to do so. When, however, minutes are of importance, the plate is taken out of the developer and laid face upward under the tap for a minute or so. In the meantime a piece of bromide paper is put in a dish of clean water to soak, and its sensitive surface is then brought into contact with the film of the negative; the two are placed between a few pieces of clean blotting paper and gently squeegeed into contact. The glass side of the unfixed negative is wiped dry, and the exposure made in the usual way, making a considerable increase in exposure to allow for the light stopped by the white silver bromide which has not been fixed out. After exposure, the bromide paper is pulled off and developed as usual; and after as many prints as may be required have been made in this way, the negative may be fixed, washed, and dried, just as in the ordinary course. In fact, there is no reason why it should be any the worse for its experiences.

Printing from a Wet Negative.

Although the method just described is practical, and is, indeed, often adopted, the presence of the unfixed image is not advantageous, and if time will permit it is better to fix the negative, and give it a minute under the tap to take the worst of the hypo out of it. There are then several methods by which a print can be obtained from it without waiting for it to dry.

It is no longer possible to squeegee a piece of wet bromide paper to it, as the hypo in the film would injuriously affect the paper, and the time required properly to wash the hypo out is out of the question for rush work. But other methods are at hand, as good if not better.

The Use of an Enlarging Lantern.

The simplest of these, in many respects the best, is, after wiping the glass side of the negative dry, and gently scraping all the surface moisture off the film side with a soft rubber squeegee, to put it into an enlarging lantern and make an enlargement from it, straight away, of any required size. It may be news to some of our readers that it is as easy to make an enlargement from a wet negative as from a dry one; but it is nevertheless a fact.

The only precaution that need be taken is against the melting of the film from the heat of the enlarging lantern; and if there is any risk of this, half a minute in a 5 per cent. solution of formalin will be found a complete safeguard. All depends on the illuminant and the make of plate. With incandescent gas in the lantern there should be no risk with any plate, unless the exposure exceeded ten minutes, but the films of some plates are so hard that they will stand any illuminant without special treatment of any kind.

Printing by Contact from a Wet Negative.

But an enlarging lantern is not a necessity. There are methods of printing from wet negatives without wetting the paper. The course most generally followed is to squeegee upon the wet negative a piece of thin clear sheet celluloid. Spoiled roll film, with its coating carefully removed, answers perfectly. The glass side of the plate is wiped dry, care is taken not to wet the outside of the celluloid, and, the printing paper being laid down in the frame upon it, the exposure is made in the usual way, just as if the negative were dry.

An alternative method, published quite recently, is to use waxed paper instead of the celluloid; but the stronger character of celluloid would certainly seem to be preferable. It may be pointed out that the slight separation between the negative and the printing paper, due to the interposition of the thin sheet of celluloid, is without any injurious effect upon the definition; in fact, when the exposure is made to artificial light in the usual way it is not noticeable.

Hurrying the Print.

When the print has been exposed there is not much opportunity for saving time in its development or fixing; but these are not operations of a very lengthy character. After it has been fixed, it should be washed in constant changes or in running water for as long as time will permit. It is then either dried as it is, or, if time is very valuable, is given a minute in a 5 per cent. solution of formalin, and is laid down on a clean piece of glass or ferrotype. Dry blotting paper is put on the back of it, and squeegeed well into contact, the blotting paper being changed once or twice. The print is then stripped off the ferrotype and placed in a current of warm air. It is easy to dry bromide prints in this way in about five minutes, without any risk of injury.

Prints for press work are not usually wanted mounted—at least this rush work is not—but if mounting is necessary, the dry mounting process is to be preferred. In any case, mounted or not, it will be found by working on the lines we have indicated, which are those of press photographers known to us, it becomes a very simple thing to turn out a finished print in an hour or less from the time at which development of the negative was begun.—R. CHILD BAYLEY in *Photography and Focus.*

THE ART OF INTENSIFYING AND REDUCING NEGATIVES.

[THE many inquiries we have had recently for methods of intensifying will be best answered by the following clever article by J. McIntosh, reprinted from Jas. A. Sinclair's *Photographic and Optical Guide.* Mr. McIntosh is an authority on this subject.—ED. W. P. M.]

In applying methods of intensification and reduction, it is necessary for complete success that the photographer should have not only a knowledge of what these processes will accomplish, but also a thorough understanding of the faults that are to be remedied and the process of discriminating between the remedial processes. The experienced photographer knows at least the defects of his negatives even if he has not practised the arts of correcting them, but the photographer who has only recently taken to the camera has naturally everything to learn. It will be assumed in what follows that the reader is in the position of one asking for information on all points.

The faults in negatives which are curable by intensification or reduction are due to incorrect exposure, incorrect development, and very likely to both. Those due to the second cause are much more easily dealt with than those resulting from the first, and the inexperienced photographer is advised to spare no pains in acquiring the power of judging the correct exposure under all conditions. The actinometers now sold for this purpose simplify the matter to such an extent that comparatively little is left to the judgment of the worker. The cost of an actinometer, the time

spent in understanding it and the cost of a box or two of plates expended in experimental work will be speedily recouped in the improved quality of the negatives and in the saving of labor that would otherwise have to be expended in correcting faults. Intensification and reduction should be regarded as processes to be applied as seldom as possible, as the need for them is, as a rule, due to errors on the part of the worker.

A plate may be correctly exposed, overexposed, or underexposed. A correctly exposed plate may be correctly developed, or it may be overdeveloped or underdeveloped. An incorrectly exposed plate can hardly be said to be correctly exposed under any conditions, but it may be lightly developed or fully developed. As the inexperienced worker may have some difficulty in classifying his faulty negatives, it is desirable to indicate the appearance of the prints which can be obtained from them before remedial measures are adopted, and to specify the simplest remedies to which resort should be had. It should be understood that no one process of intensification or of reduction is the best under all circumstances, and at the risk of imparting uncalled-for information it may be pointed out that intensification increases the density of a negative, that is, it makes it stronger, while reduction lessens the density.

We may take first the case of a plate which has been correctly exposed. If the developer is one which has been correctly compounded, the image will appear in from twenty to forty-five seconds. The high lights will first show as black patches, the half-tones will gradually appear, then the details in the shadow portions and finally the whole surface, with the exception of the margins, will darken over. If at this stage the negative is rinsed and washed it will be perfect of its kind, but if development is carried too far the negative will become so dense that even in bright light printing may occupy several hours, and it will be found that before the details of the high lights are visible in the print, the shadows will be heavy masses of ungraduated black.

Obviously it is necessary to get rid of the excess of density, and in doing so the high lights and shadows should be reduced proportionately. This does not mean that the density is to be reduced equally over the surface of the plate, since in that case the shadows would lose more in proportion than the high lights. The only agent which will do what is required is ammonium persulphate. Only a sufficient quantity of the salt for the work in hand should be taken, distilled water should, if possible, be used, and a fresh portion of the solution should be employed for each negative. The formula is:

Ammonium persulphate . . .	8 grains.
Sulphuric acid (10 per cent. solution)	20 minims.
Distilled water	1 ounce.

Another dish containing a 5 per cent. solution of sodium sulphite should be at hand, and an unused fixing bath of ordinary strength is also required. The negative is immersed in the persulphate solution, care being taken to flood it all over, and it must be closely watched. The persulphate solution is somewhat capricious in its action, but, as a rule, it works very slowly at first, increasing in speed as the action progresses, so that once reduction of density is seen to be taking place a close watch must be kept lest the action should proceed too far and the image be entirely obliterated. When the density is judged to be sufficiently reduced the negative is to be at once, and without washing, transferred to the sodium sulphite solution for five minutes. It must then be well washed, placed in the hypo

bath for a few minutes, thoroughly washed and dried. The sodium sulphite checks the action of the persulphate at once and the hypo bath removes any salts which may have formed in the gelatine, but a thorough washing is required before the negative is placed in the fixing bath, since, if any acid remained in the film, the hypo would be decomposed and the negative be stained a deep yellow with probably considerable danger to its permanence.

In the second place we may take the case of a correctly exposed negative, but with which the development has been checked before the whole surface of the plate has darkened over. A print made from such a negative on one of the printing-out silver papers, if examined soon after printing has begun, will appear as a very delicate image, correct in gradation, but much too weak to stand toning and fixing. As printing proceeds the image will darken all over and it will be impossible to have pure whites. In this case it is necessary to strengthen the image proportionately throughout, that is, greater strength must be added to the high lights than to the shadows. Undoubtedly the best method is that advocated by Mr. Chapman Jones and the formula is as follows:

Mercuric chloride	1 ounce.
Distilled water	16 ounces.
Hydrochloric acid	32 minims.

The negative is immersed in this till it is bleached white when examined from both sides and is then washed in several changes of water, acidulated with hydrochloric acid, say 40 minims to the pint. It should then be washed in a dozen changes of plain water, when it is ready for the next operation, which is to blacken the bleached image. The formula is:

Saturated solution of potassium oxalate	6 parts.
Saturated solution of ferrous sulphate	1 part.

The ferrous sulphate solution should be poured slowly into the potassium oxalate solution, otherwise a yellow precipitate is formed. The negative is immersed in this until the image is thoroughly blackened, when it should be well washed before drying.

If the increase in density is not sufficient the operations may be repeated as often as required, but many workers find that they cannot repeat the operations successfully, though this is entirely due to want of chemical cleanliness. Those who prefer to obtain considerable access of density by one operation may employ the following method, but the results cannot be guaranteed to be permanent. The negative is bleached and washed as in the previous method and is then blackened in a 1 to 20 solution of ammonia, after which a very thorough washing should be given before drying.

In the third place we may take the case of a negative which has been overexposed. When the developer is poured over it the image will appear quickly, and before the high lights have time to gain density the half-tones and shadows will also appear and in a few seconds the whole surface will darken over. If development is carried out very fully the negative will be dense, it will take a long time to print and the picture will be flat, showing but slight contrast between the lights and shadows. In such a case the density requires to be reduced more in proportion in the shadows than in the high lights. No chemical is known that will reduce the strength of the shadows without at the same time removing some portion of the density of the high lights, but there is a whole host of chemicals which will reduce the density equally over

the whole surface of the plate. In doing so it is obvious that the proportion removed from the shadows is greater than that from the high lights, and the desired object is attained. A simple and satisfactory reducer of this nature is:

Potassium permanganate . .	4 grains.
Sulphuric acid	8 minims.
Water	5 ounces.

In this the negative is immersed till the required reduction takes place, when it should be well washed and fixed in a freshly made hypo bath of ordinary strength. If, after the permanganate bath, the negative is found to be stained brown or yellow, the cause is an insufficiency of acid in the bath. The stain may be removed before fixation by immersing the negative in:

Sodium sulphite	60 grains.
Oxalic acid	12 grains.
Water	1 ounce.

The negative must be thoroughly washed after this bath and fixed in hypo as previously stated.

In the fourth place we may take the case of an overexposed plate which has been removed from the developer before great density has been obtained. A print from such a negative will show little contrast at any stage of printing, and as printing is continued will quickly darken all over. The remedy is to increase the density of the high lights without adding to the density of the shadows. This is quite possible, but requires some judgment in checking the action at the required stage. The image is first bleached in a mercuric solution and is then blackened in a solution of silver cyanide. This latter solution at first converts the image of white silver and mercurous chloride to the metallic state and then dissolves out the mercury. The action commences on the surface of the film and proceeds slowly downward. The result is that as the shadow detail lies on the surface it is first strengthened and then reduced to its original strength. A proportion of the half-tones and high lights are also on the surface, but also go deeper into the film. The result of careful treatment is that by checking the action at the right time the increase of density in the lights and half-tones is only partially undone and a considerable accession of contrast is obtained. This process of intensification is known as Monckhoven's, and the working details are as follows. Three solutions have to be made up, they all keep well and they may be used several times until exhausted.

No. 1

Mercuric chloride	100 grains.
Potassium bromide	100 grains.
Water (distilled)	10 ounces.

In this the negative is bleached and is then thoroughly washed, as in previously described methods. It is then blackened in a solution made by combining the two following:

No. 2

Silver nitrate	100 grains.
Water (distilled)	10 ounces.

No. 3

Potassium cyanide	100 grains.
Water (distilled)	1 ounce.

No. 3 is added gradually and with constant stirring to No. 2. At first a heavy white precipitate is formed, which is dissolved on the addition of the cyanide solution. Care should be taken not to add more than is sufficient to dissolve the precipitate, otherwise the blackening of the image will not take place satisfactorily. The solution should be poured into a dish, and if running water is not at hand a large bowl or pail of water should be near by. The negative is immersed in the silver cyanide solution, and at once the surface

of the negative will blacken. After one or two seconds the plate should be lifted out and the back of it examined. In all probability the shadows only will be blackened, the lights and lighter half-tones remaining white. It is to be returned to the bath and again examined. Presently the half-tones will blacken and then the high lights. Immediately the last trace of white has disappeared from the back of the negative the plate must be held under running water or plunged into the pail of water to check the action of the silver cyanide solution. Thorough washing should follow, and it will be found that the contrast in the negative has been greatly increased.

We now come to the case of underexposed negatives, and it must be understood that comparatively little can be done in such cases and only if the error in exposure has been slight. Nothing but the pencil can supply missing shadow detail. An underexposed plate will develop slowly, the half-tone and shadow detail lagging long after the appearance of the lights. Many workers in such a case push development to the farthest in the hope of getting printing density. It is, however, a bad practice. If the subject is one with much contrast, the highlights will be extremely dense, while the shadows will still be very thin, and fog is almost certain to still further disfigure the negative. The print will show violent contrasts, the shadows being masses of solid black and the high lights being simply spots of white paper. Negatives of this description may be improved (if not too bad) by the following method, but it is one that requires considerable judgment in applying it.

The following solution is made:

Chromic acid	30 grains.
Potassium bromide	60 grains.
Water	10 ounces.

In this the negative is thoroughly bleached and is washed in water till the deep yellow color which it takes is discharged. One or two baths of a 5 per cent. solution of potassium metabisulphate will assist in getting rid of the color. During these operations the negative should be well exposed to white light. The negative has then to be redeveloped, and a clean working developer should be selected. Metol, metol-quinone, ortol, and glycin are all suitable. The object is to get rid of a portion of the density in the high lights, which can be done in the following manner. When the developer is poured upon the plate the whole of the surface is converted once again to black metallic silver; the action, however, proceeds slowly and may be examined from the back of the plate in the same way as in Monckhoven's intensification process. The shadows and the upper surface of the half-tones and high lights are first converted to black metallic silver, while the lower portions of these latter two, being more deeply embedded in the gelatine, take longer to develop. When from examination at the back of the plate it is seen that all but the highest points of light are redeveloped, the plate, without intermediate washing, is plunged into a freshly made fixing bath, which removes the silver bromide left in the film and the lights are reduced in density.

If the action of the developer is carried too far, the contrasts will be just as violent as in the beginning; if, on the other hand, it is checked too soon, the negative will be flat and thin. It is better to err on the latter side than the former, as the error may be remedied by intensification, as in the case of an underexposed, lightly developed negative, to be considered next, while, although the operations just described may be repeated, irregularities of action are almost certain to ensue. Grease

on the surface of the negative will also cause much trouble.

An underexposed negative which contains no strong contrasts may be developed very fully without harm ensuing, if only fog, whether due to the developer or the light of the dark-room lamp, is avoided, but in all cases it is safer to develop lightly and trust to intensification for improvement. Such a negative, if strong contrasts are present, will show the details in the high lights clearly, but the shadows and half-tones will be uniformly gray. The object must be to strengthen the half-tone and shadow as much as possible, while adding as little as may be to the lights. There are many intensifiers which will do this, but the simplest is the uranium intensifier, which has the further advantage that those who are skilled in the use of the brush may remove it entire from the high lights. The following solution is to be made up:

Uranium nitrate	4 grains.
Potassium ferricyanide	4 grains.
Acetic acid	1 dram.
Water	1 ounce.

In this the negative is immersed till the surface becomes a warm brown color. If the action is carried too far, the whole of the image will change to a brick-red color and the effect will be to accentuate the contrasts. If, however, the action is checked before the half-tones and lights are completely affected, the greatest possible addition will have been made to the strength of the shadow detail, and while fair printing density will have been attained, the contrasts will not have been increased. The negative should then be rinsed in water, slightly acidulated with acetic acid, till the yellow color in the unexposed margins is discharged. Prolonged washing will result in the whole or the greater part of the intensification being removed. If, when the negative is dry, it is found that the contrasts are still too strong, the intensification may be removed from the high lights by the application to these parts of a 1 to 20 solution of ammonia by a camel's-hair brush. The surplus liquid should at once be taken up with a bit of blotting paper to prevent it from spreading to parts where it is not required.

Many other intensifiers and reducers can be employed, but the object has been to avoid confusion by giving one only for each purpose and to select those which are simple in their application. Most of the chemicals are of a poisonous nature and can only be sold by a chemist to whom the purchaser is personally known, and, in consequence, cannot be obtained from the ordinary photographic dealer. Much may be done by the pencil and stump to improve the quality of faulty negatives; high lights may be rubbed down with wood alcohol applied with a piece of chamois leather, and for the same purpose, Baskett's reducer, made by mixing globe polish, olive oil, and terebene, may be employed in a similar way. Papier mineral may also be stretched while damp over the back of the negative, and when dry the portions over the high lights may be cut away with a sharp knife. All these methods, however, are somewhat outside the scope of the present article.

In conclusion, one word of advice is offered. All negatives, and especially those which have to receive chemical treatment, should be thoroughly fixed and thoroughly washed. The latter point is so frequently referred to that its value may be supposed to be well understood, but thorough fixation is of even greater importance, and when the photographer has reason to suppose that intensification or reduction may be necessary, he will do well to employ two fixing baths, allowing the negative to remain the same time in each which he is accustomed in the ordinary way to give to the single bath.

SPOTTING NEGATIVES AND PRINTS.

SHOULD we find ourselves the possessors of a negative with a small clear spot or pinhole on it, one of the best ways of making this pinhole more conspicuous is by taking a brushful of Indian ink or other similar opaque pigment and putting a spot of it on the hole, writes Alton in *Photography*. If we are very successful, we shall succeed in making the film all round the hole much darker; while as the paint dries, that which is on the hole will gather up in the centre, leaving a clear space all round. When we print, we shall get a white spot with, first, a black and beyond that a white ring round it, so that we shall not have the slightest difficulty at any time in localizing the hole, even in a poor light.

Perhaps it will be as well if I drop the ironical method before some impatient reader writes to the editor to say that he does not wish to make his pinholes more conspicuous, but quite the reverse. Of course you do, my friend; but can you look me in the face and say you never, in attempting to spot one out, have made one plainer than ever? I have. In fact, before I learned how to do it properly, most of those I attempted to take out were decorated in the way I have described, or almost as well. That others have much the same trouble at times, I know. I have seen some strange things in the way of spotting, even at exhibitions. It is better not to spot than to spot badly. But since the operation is actually very simple, it is a thing which every photographer should make up his mind to be able to do.

Clear spots on a negative may be due to one of several causes. An air bell on the plate during development leaves a transparent circular spot if it remained during the whole time the plate was in the developer; or if discovered and removed when developing was only partly done, it will be a circle of lighter tint than its surroundings. These spots can generally be recognized by their size, and by their shape, which is always a perfect circle. Spots due to dust may be caused either by its presence during exposure, when by preventing the light from reaching the plate underneath each particle causes a clear spot, or by the dust injuriously affecting the film. In the latter case, the spots may be dark instead of light; or, if light, they may gradually soften out into the surrounding density instead of being bounded by a definite outline. The first-mentioned form of dust spot is the most usual one. A third form of spot is due to the absence within its boundary of any of the coating of the plate. These spots very occasionally are due to defective coating and defective supervision at the plate factory, allowing a plate with such a blemish to get out. I have seen two or three plates like this, but only two or three, although an active photographer for nearly twenty years. In very hot weather it may happen that during the drying of a negative one or two such spots may form. When they do, they are the most difficult spots of all to deal with, as there is generally an increase of opacity in the film at their boundary, as well as clear glass in the centre of the spot. As these different spots want different treatment, it was necessary to go into their natural history at first, that the photographer might be able to tell them apart. Let us now proceed to their removal.

Broadly speaking, there are two ways of dealing with spots. In one, we may work on them with a retouching pencil until they are the same density and texture as the image all round them. When we have done this, a straightforward print from the negative should show no signs of them at all. This is the more

difficult method, but certainly, when it can be done, it is to be preferred. The other plan is to block out each spot, so that it prints as a white mark, and then to go over each print after it is mounted, and tone down the white mark to match the rest of the print. As each print has to be treated separately, this is more trouble, certainly; but it calls for much less skill, and is the method I should advise anyone to try who is new to spotting. As the latter plan is the simpler, I will deal with it first.

Since all we have to do is to make sure that the spot is opaque, the color of the pigment we use is not very important. Ivory black, lampblack, or sepia may each be employed; all that is wanted is a little pan of moist water color and a camel's-hair brush which will take a fine point. A retouching desk is a convenience, but not a necessity; most of my spotting is done while the negative is laid on a piece of plate glass which is sloped up by means of a couple of thick books at the two farthest corners. Plate glass is needed, as otherwise one cannot rest the hand on it without risk of breakage. A sheet of white paper may be put below the glass to act as a reflector. I find it a convenience not to cut off the light from the upper side of the negative when spotting rather than retouching is in hand; although for retouching pure and simple a retouching desk with the usual screen is an advantage.

To spot the negative, the brush is dipped in water, "twizzled" round on the pigment for a moment, and then tried on a piece of paper, giving it a wiping motion so as not to spoil the point—that is to say, drawing the brush on the paper in the direction of the handle of the brush itself, so that the point is last. By twirling it a little at the same time, the shape of the brush is kept. As soon as the point appears to be almost dry, it is ready to use. It should be held nearly vertical to the negative, and the point just touched on the pinhole, if this is a very small one. If it is done as it should be, the hole should at once disappear, only to be found after a close search. Half a dozen or more can be done in a few seconds, before the brush gets too dry. If the hole is too large to be filled with a single touch of the brush, it may have the point of the brush moved about on it, following first the outline of the hole and then filling in the centre. For this purpose, more pigment may be left in the brush, but it must not be in a condition to flow, but tending to become dry.

In an article on this subject which he wrote some years ago, Mr. H. W. Bennett said that for ordinary spotting work he preferred a mapping pen to the brush. I have used a pen very successfully on prints, but for negatives the brush seems to be easier. It should not be too fine a brush, or it will very soon be spoiled; a fairly stout one can be used, but it must be one that takes a nice point.

Before leaving the subject of these spots, let me point out that many spots which look very conspicuous when the negative is held up to the light may be quite invisible in a print. This is particularly the case with small spots on parts of the negative where the image is irregular and broken, such as a road surface or foliage. If these spots are left untouched, we may never see any signs of the mark in the print, whereas if we spot them all out we may find that we have made them conspicuous, and have given ourselves a lot of work in consequence. It is well to make sure, therefore, before starting to spot, that the need for it exists.

The spotting so done gives us a white mark on the print for each spot. The reason we have made the spots white is, of course, that, whereas it is easy to tone down a white spot to match its surroundings, it is not easy to lighten a black spot on the print, for the same purpose. The method of applying the pigment to the

print may be exactly that adopted in spotting the negative. We can use the same brush, and the same pigment also, if it will match the color of the print. Only we must use it far weaker, or the spotting will be too dark. It is practically impossible to use the brush as it comes from the pan of paint. We must dip it in water, just touch it slightly on the pigment, and then wipe it on a piece of white paper till it is nearly dry and only slightly darkens the paper. No one who has not tried it can realize how very little of the paint is needed, except for the spots that come in the deepest shadows, where in nine cases out of ten it is better not to touch the negative, as the spots will not show. It is the spots in the sky, on faces, and in similar conspicuous positions on light tones, that call most for spotting out on the negative and spotting on the print, and here the merest trace of color is sufficient to do what is required.

The commonest fault in spotting on a print is a bad match between the tone of the print and the pigment. Many workers are comparatively insensitive to differences of color, and if the reader has any suspicion that he is one of these, if he uses water color mixed to match the tone of his print, he must get someone of keener color vision to mix it for him. But working in a bad or unsuitable light is still more likely to be the cause of the trouble. We may take it that print spotting can only be properly done in a good light and in daylight. However good the match may seem to be by gaslight, when we come to look at the work by daylight we are almost sure to find the spots painfully conspicuous.

There are certain methods of insuring an absolute match. In the case of carbon prints we can do this by putting a few scraps of the unexposed tissue in cold water; when quite soft, we can add hot water to dissolve the gelatine and pigment. In this form it is not easy to use, as the gelatine tends to set or solidify in the brush itself, as it cools; but if we add plenty of hot water, and stand the liquid aside for a day or two, most of the pigment will settle at the bottom of the vessel, and the clearer liquid, which contains the gelatine, may be poured off and thrown away. The sediment can be used as it is for spotting, and will match the prints on the same tissue. The same method could be adopted in the case of bromide or gaslight prints, dissolving some of the image in hot water and using it for spotting. But there should be no difficulty whatever in matching by means of ordinary water color the fine black which these processes give. In the case of sulphur-toned bromides, this method might be used, by developing up black a piece of the paper, toning it, and dissolving the image; but I have never found any difficulty in making a perfect match of the tone of the toned print by the use of ordinary sepia water color.

Not only have we got to match the color, but we must match the surface also, if this is a glossy one. Matt-surfaced papers give us no trouble in this direction, but with a glossy print a spot of water color, however perfect a match in color, will be painfully conspicuous. The simplest method of preventing this is to moisten the brush with a solution of gum arabic before applying it to the pigment.

Spotting negative and then print is not much trouble when the prints to be taken from each negative are few in number, but where they are many it is certainly a saving of time to avoid any necessity for work on the print. To do this, the spots must be retouched out with a pencil. I think those amateurs who try retouching and fail often do so for want of the necessary appliances. It is quite impossible to take an ordinary pencil with an ordinary blunt point, and do any useful work with it on the untouched film of the

negative while holding it up to the light. Some form of retouching desk must be used or extemporized, proper retouching medium must be applied to the parts that are to take the work, and the pencil must be suitable and properly pointed.

The medium which I have found most suitable is Bruce's "Non-shifting," which is sold in shilling bottles; a shilling's worth goes a very long way indeed. The tip of the forefinger is just moistened with a drop from the cork, and is applied to the part to be worked upon with a circular motion, rubbing until the medium feels tacky. A very slight trace is sufficient. The most convenient pencils are those which are known as "everpointed," a holder taking loose leads, which can be purchased separately. An H is about the best all-round grade for spotting work. A little more than half an inch of the lead should be allowed to project from the holder, and this should be brought to a gradually tapering fine point by gently rubbing on a sheet of fine glass paper, twisting the pencil the while. The final rub may be on ordinary drawing paper, and the operation should leave a point much finer than could be used for writing.

Small pinholes due to dust may be taken out with a single touch of the pencil point, but larger ones want a little different treatment. The point should be kept on the surface of the negative and moved in a series of little spirals until the hole is so darkened with lead as to be about the same tint as its surroundings. If it breaks a line in the picture, if possible the line should be put in on the negative with the pencil; but one has to be very careful not to overdo this sort of thing. As long as the difference between the hole and its surroundings is much reduced, a complete match need not be obtained, although, of course, if it can be got it is all the better. When the amateur finds how very simple this sort of work is, and it is nothing like as difficult as it seems before it is tried, he will probably feel tempted to do too much instead of too little. Let him take a warning against the temptation.

There is no need to stick to the spiral motion of the pencil point. Some prefer a kind of stipple of little dots, others a sort of shading with straight lines, while some vary the stroke according to the work. One must be guided in this by what one thinks is right; the spiral scribbling is a very good stroke with which to commence. The pressure of the pencil must only be slight, and it will soon be found that there is a limit to the quantity of lead the medium will take. If more is required, the negative must be varnished in the usual way to hold what has been put on, and then again treated with medium and the pencil applied. This ought not to be necessary except in very rare cases. If the work put on seems wrong, a little clean turpentine on the tip of the finger will take off both the pencil marks and the medium, and, a fresh application of the latter being made, the work may be begun again.

It only remains to consider the case of the spots where the actual glass itself is bare, either from bad coating or from incipient decomposition in hot weather. We cannot apply pencil satisfactorily in such a case, and water color is little better. It is very seldom that such spots have to be dealt with, but when they do, or when some accident has taken a piece of the film right off, a little piece of gelatine may be soaked in clean cold water till limp, dissolved with a few drops of hot water, and then, when warm but not hot, a drop may be put on the bare glass and edges of the opening, and be allowed to dry undisturbed. We can then work on this with pencil or brush as described above. A simpler plan, if we only want to make the spot print out white, is to fill it up with a little Brunswick black. The glass takes this quite easily, and it is practically opaque when dry. Only a very little must be used.

THE KING OF FINANCE

Copyright, 1909
By Oliver Lippincott

A Composite of the Portraits of fifty National Bank Presidents of Greater New York

By Oliver Lippincott, New York

Miss Dorothy Lawson

By J. H. Garo, Boston, Mass.

Mrs. Lord

By J. H. Garo, Boston, Mass.

The Late Louis F. Prang

By F. Ernst Zimmerman, Boston, Mass.

1 Emperor William II

2. Herbert Bismarck

3. Emperor William II

4. Mrs. Koner

Illustrating Sidney Allan's Article

5. Ernst Curtius
6. Mrs. Steinthal
7. Otto Brausewetter, Painter
8. J. H. Meyer

Illustrating Sidney Allan's Article

9 Lieutenant-Colonel Schumann

10. Count Lichowsky

11. von Miguel

12. Banker Warburg

Illustrating Sidney Allan's Article

MASTERS OF PORTRAITURE—MAX KONER.

BY SIDNEY ALLAN.

THE name of Max Koner is less known than those which have previously appeared in this series of articles. He was a Berlin artist. He died recently, at the age of forty-six. He made a specialty of portraiture, and was ranked as a specialist, *i. e.*, nobody expected anything from him but good, reliable portrait work.

He had no mannerisms and no eccentricities to exploit and display. He indulged in no individual flourishes at the expense of his sitters. He had absolute control of all the technical resources of his art, but characterization seemed to him more important than the sheer joy of manipulating his paint. Very likely he was less of an artist than some of the other masters of portraiture, but he was in turn a more faithful delineator than most of them. If we look at a Sargent, we are apt to think of the painter first; we say this is a Sargent and it represents so and so. With a Koner just the opposite occurs. His portrait study of Emperor William (Fig. 1) enjoys international fame, but how few remember by whom it was painted!

Koner was in a way the most reliable of portrait painters. He never insulted the sitter by some satirical interpretation. He simply tried to fathom the character of the man or woman he had to portray, and then painted them as well as he could. His portraits excel as the representation of distinct types, like Figs. 7, 9, and 10. The personality of the sitter attracts our main attention, and gradually at closer scrutiny we appreciate how simply and skilfully the result has been obtained. At the first glance they are apt to deceive us; we even may find them a trifle "photographic." There are no special poses, special arrangements, and elaborate accessories, as we used to see in the paintings of most portrait painters. He was satisfied with getting the likeness and a characteristic, natural attitude. He searched for the very best and most convincing facial expression in all his sitters.

Koner was a favorite painter of the German emperor, and painted him more than a dozen times. Whenever he painted him simply as a man of interest, he succeeded; but as soon as he accentuated the "Emperor" and delineated him in some martial attitude amidst palace columns and imperial robes and insignia, he made a failure of it. Pictures like Fig. 3 always look stilted, no matter how well done. The picture hangs at the German Embassy in Paris, and may be conducive to call forth a reverential feeling in patriotic beholders, but it is bad art. A single character delineation like Fig. 1 is much more convincing.

Fig. 2, the portrait of Herbert Bismarck, is a true Koner. How well the figure fills the space, and how cleverly all details have been subordinated to the facial expression! Nothing simpler could be imagined. The silhouette of the bulky body is exceedingly fine, and the background just of the right shade to avoid all harshness in the outline of the figure. It was wise of the painter to hide one of the hands under the tail of the frock coat (a perfectly natural action), as it would have spoilt the harmony of the entire composition.

Fig. 4 is also a silhouette composition. It lacks simplicity. The pose of the

hands, although beautiful in line, is rather affected, nevertheless they help the arrangement. There are only three decided accents, the light planes of the face and the two hands, and they perfectly balance each other. This was accomplished largely by placing the three spots in a diagonal line. The dress, the fashion of 1884, is somewhat awkward in line, but the painter made the best of it.

I do not think Koner's strength lay in picturesque arrangement like Fig. 6. The circular treatment of the boa is novel, and also the curve formed of the bare shoulder and arm is well thought out, but the picture does not impress me as a particularly successful composition. It lacks naturalness, and the body looks foreshortened. Her attitude is one of leaning forward toward the spectator, but one should not become conscious of the process of the movement. It is very likely a rather inaccurate drawing.

Fig. 8 is one of the weakest examples. The silhouette is too decided and there are too many vertical lines in the figure. The portrait of Brausewetter (Fig. 7), on the other hand, is a masterpiece. It looks like an instantaneous interpretation. We are certain that it is a good likeness. The painter no doubt had an interesting sitter, but it is his merit that he chose a convincing attitude. The hands and the deportment of the body are about as interesting as the face. A certain breadth of treatment in the coat and vest remind one involuntarily of a daguerreotype.

Ernst Curtius, the famous historian (Fig. 5), did not pose quite as well. I do not believe that an oblong is a favorable shape for the portrait of a man. It is too difficult to fill the space. This portrait is a clever attempt at it. It is done by spotting, by the proper relation of the hand in the lower right corner to the face, head, and shirt-front. Also by the half-circular outline of the arms; but I fear it is just this line which lends a feeling of awkwardness to the composition. The head, after all, is isolated; there is too much meaningless space all around it. The face is excellent, though lacking in contrast. Even lighting all over the face seemed to have been one of the peculiarities of Koner's art.

In Fig. 12 we have a similar pose to that of Fig. 5, but how much better the body is in space! It proves my contention that good composition is largely a matter of the particular space the artist has at his disposal. But as that is a matter of choice, unnecessary difficulties should be avoided. The face of banker Warburg, expressive as it is, I believe would gain by a little less symmetrical light and shade arrangement. The two sides of the face are almost exactly the same.

Fig. 9 shows how a uniform can be handled sucessfully without becoming obtrusive. The light lining of the coat furnishes a sort of uniting link between the decorations, swordhilt, hands, and face. Without it the picture would look spotty. The more light spots you have in one part of the picture, the more you need somewhere else. The silhouette is carefully managed and the background noteworthy for being darker on the top than at the bottom.

Fig. 11 is a simple, impressive pose, but the figure is too large for the space of the picture. There should be more space at the top on the right side. The portrait of the Count of Lichnowsky (Fig. 11) is as excellent as that of Brausewetter. This is more than an ordinary exterior resemblance of human features, more than a topographical chart of countenance. They speak for themselves, their necessity is unmistakable. They are indisputable proofs of the truthfulness of the artist's work. Without our falling into exaggeration,

Koner has the rare faculty of fixing the salient points of his sitter's physiognomy.

Koner's work should be particularly interesting to portrait photographers. He is so direct and simple, and yet so sympathetic and modern. His general treatment and lighting may teach nothing new, but his handling of silhouette, background, hands, and facial expression should receive the fullest attention. They are more serious and truthful than the efforts of many painters with higher ideals.

The next paper will be devoted to the works of F. A. von Kaulbach, Germany's "fashionable" portrait painter.

CARBON TISSUE SENSITIZING SIMPLIFIED.

THE carbon process would be much more popular among photographers if it was once realized how very little trouble there need be in sensitizing tissue. Then the fact that tissue will not keep very long when once it has been sensitized would not be important; but, on the other hand, the fact that, unsensitized, it will keep any length of time in perfect condition would be felt to give carbon work an advantage in this respect over all other processes, except, perhaps, bromide printing.

There seems to be a tendency among "authorities" to overelaborate the instructions for sensitizing tissue; certainly there is no need for half the details that are generally given. Take the case of time of immersion of the tissue. Some say three minutes, others four minutes, and one excellent handbook tells the photographer to time it with an egg-boiler.

Is this really necessary? I think not.

In fact, it is the reverse of necessary, since it introduces a possiblity of variation which is better avoided. Either the tissue in the time given has saturated itself with the bichromate solution, or it has not. If it has not, then slight variations in the time of soaking might be expected to produce distinct variations in the sensitive tissue; and that they do so I have satisfied myself by actual trial. But if the soaking is amply long enough for the tissue to take up all of the solution that it will, then a little more or less time in the sensitizer makes no difference at all in the resulting prints.

The only doubtful point, it seemed to me, was whether there was any other trouble that might be experienced when this complete saturation was allowed to take place; but up to the present I have been quite unable to detect anything of the kind; while tissue left in the bichromate solution for half an hour is not to be distinguished in any way from tissue that has only been allowed to soak for five minutes. All my own work has been done on Autotype tissue, and it is possible that other makes might not answer so well, from the gelatine coating being softer, or from other causes; but the method to be described certainly seems, with Autotype tissues, to have no drawbacks whatever.

The requirements are a few sheets of clean ferrotype plates, a dish, a squeegee, and a bottle of bichromate solution. This last I kept in the form of a saturated solution, which is approximately ten per cent. in strength. Two ounces of bichromate, as bought, are put into a pint bottle, which is filled up with water and shaken from time to time. Ten drops of strong liquor ammonia are added, and this constitutes the stock solution. The strength of the solution that is used for sensitizing will depend on the user—some like a strong and some a weak bath. My own is made by

taking three ounces of the stock solution and diluting it to make half a pint.

The tissue is cut up into pieces a little larger than the negatives to be printed, and a piece being taken, it is immersed face upwards in the solution, and the squeegee is passed gently over it once or twice in both directions. It is then turned over and the back squeegeed in the same way. This removes air bells, and when it has been done I hold the tissue up by two corners and look it over to make sure there are no air bells on it. It is then again placed in the solution (face downwards this time), and the next piece is put in on top of it, and is treated in exactly the same way. Then another and then another are put in, until all the tissue that is going to be sensitized is in the dish.

There is one point I ought to mention, and that is that one must make quite sure that the gelatine surface is limp before allowing it to rest for any time on anything else. If we take a piece of tissue and put it into a dish face downwards and leave it for two or three seconds in contact with the bottom of the dish it will adhere to it firmly, and we shall not be able to get it off without damage. It is the same thing, in fact, as that on which we rely to make the printed tissue adhere to the transfer paper. Therefore, we must wait until the tissue feels limp before dealing with a fresh piece, but this only takes half a minute or so.

When the last piece of tissue is in the dish the first may have been in for ten minutes or more. There is no need to hurry things, and it should be left in for at least a quarter of an hour; if more, as I have already pointed out, it does not matter at all. The pile of tissue lying in the dish is then turned over, so that the piece first sentitized is on the top, and this is picked up, allowed to drain for half a minute, and is then laid on a sheet of ferrotype and squeegeed into contact. The squeegeeing need only be done very gently, and certainly should not be hard enough to injure the paper backing. Then, the ferrotype being stood up on one side, the next piece is squeegeed, and so on until all are done.

The tissue on the ferrotype may be left to dry in daylight in an ordinary room, and when quite dry it will be found to come off very easily and with a beautiful gloss, which enables it to come into perfect contact with the negative.

This method gets rid of all trouble over the timing of the immersion, and will be found to be a great saving of time in sensitizing, as in the old way to sensitize a dozen pieces took at least twelve times as long, as each piece had to be left in the bichromate; it was not possible, or at least not easy, to sensitize more than one piece of tissue at once. By my method the twelve pieces can be done in a quarter of the time or less, and the resulting pieces will be more uniform in quality.

The strength of bath named above may be altered within wide limits, and the speed of printing and the contrasts in the print will be altered. The stronger the solution the quicker will the tissue print, but the weaker will the print be in contrast. For negatives of the "platinum" type the strength named will be about right, and I should not advise the photographer to vary the strength of his bath unless absolutely necessary, as by doing so the time taken to print is altered, and there is considerable risk of over or under printing.—A. R. E.

Rodinal the Best Stand-developer. According to Dr. Mebes, the best stand-developer is prepared with rodinal, and he recommends the following formula, which originated from Meydenbauer:

Rodinal	1½ drams.
Saturated solution of potassium carbonate	1½ drams.
Water	35 ounces.

GROUPS AND GENRE SUBJECTS.

COMPILED BY J. W. LITTLE.

On the editors' assurance that the "Hints on Portraiture," published in last year's *Annual*, have been widely appreciated, I have compiled a few hints on photographing groups and genre subjects for the present volume. As with the former compilation, it is inevitable that these notes, gathered from many sources, may seem somewhat disjointed and lacking in orderly arrangement, but it may be that the help they offer will sufficiently atone for this defect.

Where two figures are posed together, the light one should generally be placed in front or slightly forward to give it more prominence. This, however, is not to be taken as an absolute rule, as the object of most importance should be placed in the position of chief interest regardless of the character of the dress or drapery of the subject. If one of the subjects or persons in the group expresses action, as will happen in genre pictures, the other figure remaining passive, the former may be given greater prominence.

The number of figures, the color of the draperies, and so on, should all be considered and the composition worked out before any attempt is made at the actual posing or placing of the figures. Where it is possible a sketch of the proposed composition should be made beforehand as better assuring a pleasing arrangement.

The general principle that those persons with light-colored clothing should be placed near the centre, and those with darker clothing arranged on either side, may not apply where it is desired to give equal prominence to each member of the group. In this case the lights and darks should be grouped together so as to present an harmonious balance in tones. Very seldom should a group be so arranged that those wearing light clothing are placed on either side and those wearing dark clothing are in the centre.

The figures most distant from the principal figure in the group should exhibit less interest. When two figures are so placed that their arms cross, the formation of right or acute angles should be avoided or concealed if possible. Where there are two figures in a portrait, the darker face should usually be placed in the stronger light, altho gh this will be influenced by the character of clothing worn by the subject.

A satisfactory composition is to have the principal heads show one mode of arrangement, the general appearance of the group a second, and the background a third, by which means simplicity with variety is secured.

A good way to arrange a group composition is to put one figure into the group at a time as though arranging a bouquet of flowers. Each figure should be well posed as an individual, so that all the others could be taken away and the single figure would please the eye alone. If the members of the group happen to be fairly equal in height, they should be so placed as to give variety in this detail, which can be secured by the use of stools or chairs of different heights, and so on. In groups or genre arrangements it is well to place taller persons behind so as to avoid reversed perspective. In groups of three figures, where one seems naturally opposed to the other two in character,

the two may usually overlap and be considered as one mass in composition.

To avoid a spotty appearance in large groups made up of many figures the lights may be gathered together, and will be less noticeable if a separate mass of light can be introduced, such as a portion of sky or building. For indoor groups there can be a broad mass of light on the wall or floor or by the inclusion of a window. As a rule, backgrounds in group work should be kept very simple, sufficient variety being secured in the arrangement of the group.

In groups of persons sitting on the ground, the lower limbs of the outside figures may be so arranged as to bring down the sides of the triangle and thus avoid monotony by having all in the same position, but both sides should not be exactly alike. In a pyramidal composition, the angles of the pyramid should not be equal and the line in front should not be straight. In other words, the formation of a perfect geometrical figure should always be avoided. In compositions where the pyramidal form is used, care should always be taken to introduce sufficient variety in the shapes and heights of the pyramids to prevent geometrical arrangement being too obvious. Large pyramids should usually be composed of smaller pyramids overlapping. If one figure in a group is separated in thought or action from the others, its line should also be independent. Small groups compose better than large ones. In a group of two or three, with black and white draperies in juxtaposition, an opposing figure in gray or neutral tone will help in producing an harmonious combination.

Parallelism is objectionable in groups, but some exceptions must be made to vertical and horizontal lines, which often have considerable significance and add to the stability or support of the design.

The chief figure in a group should usually be at or near the edge and facing the group, so as to divide the group equally, and so that all the figures in the group may be within a certain distance of the centre of interest, providing the action is still proceeding. If the person at the centre of interest faces one side of the group, those on the other side should show less interest.

If in a group the line of heads is not sufficient to gather in the converging lines of the figure, this may be accomplished by skilful use of accessories. The gathering line may or may not be curved, but care should be taken to see that it leads the eye back to some leading part of the design and not out of it. Draperies, tree branches, or lines in the background may be made useful in this. It is not an easy matter to secure good likenesses in groups; therefore, when it is necessary or desirable to show good portraits of all in the group, it is better to simply endeavor to record the fact that a certain number of people met together, sacrificing character portraiture and making simply a record.

In a group of two the importance of principality cannot be insisted upon, the main point being that the lines of the two figures should combine harmoniously and produce pleasing light and shade effects.

In a scattered composition of figures outdoors there should be one or two figures or smaller groups in the foreground, detached from or loosely attached to the rest of the arrangement. Where concentration is wanted in the character of the figure or figures, there should be few accessories and the background should attract little attention; but where there is no person of special interest in the group more attention may be given to the accessories and general effect.

When taking groups under a porch,

and the light is strong, place the figures well to the front. The interior of the porch will be much better lighted in a subdued light when the sun is not shining; or, still better, late in the afternoon or under a sky of white clouds. Give a full exposure and do not develop the plate too long.

If the group in hand is made up of a man and woman and one is seated, let it generally be the woman. There are exceptions, such as when we have to deal wih a very tall man and an undersized woman, or a stout woman and an unusually slender man.

Any one of the figures in a group may be emphasized by isolation, by contrast with the background, or by position, *i. e.*, by placing the figure in a relatively stronger position in the picture space, by bringing the figure nearer the camera, or by giving the figure vigorous illumination. Any two or more of these devices may be combined or modified.

The figures in a group should not show divided interest; *i. e.*, they should not look in all directions or wholly out of the picture, so that the composition will not hang together. In a group of two the figures should not be separately engaged nor looking in opposite directions. The central figure of a group may have the head turned one way and the body in another way to produce balance. Greater license may be taken in balance of a single figure than with many.

Light, as an element in the composition of two figures, is stronger than place or position. White hats, baskets, etc., in outdoor pictures should be carefully handled; otherwise they are apt to be distracting, especially if they reflect the strong light without showing detail.

In outdoor groups, tree trunks or branches should not be permitted to appear to be growing out of the heads or shoulders of persons in the group. When working at the seashore the horizon should not be so placed as to cut off the heads or upper portions of the figures. Usually a turn this way or that will avoid these distracting elements.

Sometimes in photographing outdoor groups a good background may be obtained by placing the figure against a mass of foliage, with little penetration by the sun or with one or two spaces at the side. If too much light gets through, the result will be spotty. The background must not be hemmed in, however, but must leave room for exit, and, of course, the background itself should not present any feature liable to distract the eye. Be careful to see that both back and front figures are well in focus. This may be accomplished by the use of a small stop, or by placing the figures so that they all come in the same plane. If the lens used has a round field, it is generally advised to place the figures in a semicircle, although this will have a tendency to make the end figures look relatively larger than those in the centre of the group. In the use of flat-field lenses, such as the modern anastigmat, this difficulty is not encountered.

When the sky is obscured by dark clouds, or the light is very subdued, the figures of the group may be outlined against it, but outdoor groups should not be taken against a bright sky.

In groups or genre there should, if possible, be a sequence of action following naturally from one to another through the composition.

In the treatment of crowds, a good plan is to get them arranged into a principal and one or more auxiliary masses. If this cannot be done, try to mass the crowd in wedge form, as seen in perspective, the wide end of the wedge at one end of the picture. The leader, as the commander of an army, or the shepherd of a flock, may stand

ahead or slightly apart from the rest, or there may be two or more figures engaged in some minor action in front of the general mass of figures, which will then serve collectively as a background to the smaller group of chief interest.

In figure studies, where the interest is all in the picture itself, the lines should not conduct the eye away from it. If the interest is outside of the picture, as may be the case in a genre subject, the lines and the eyes of any figures in the genre should lead the eye of the observer toward the point of chief interest.

A figure may be given height, dignity, and a commanding appearance by making it almost completely fill or dominate the picture space. An exalted personage may be of so great importance as to demand the introduction of considerable space around the figure, even though the figure itself be small. To take a low position in photographing a figure seems to elevate the figure, giving it dignity and importance.

In genre groups one or two figures may with advantage have their backs toward the camera. Where there are two groups in the one composition, one should be dominant and the two should be connected in some way by a line. Where action is expressed in the accessories of a picture, as when figures are connected with a gathering storm, the figures should be hurrying anxiously forward to comport with the general feeling of confusion and danger imminent. The central motive in a genre subject, to which everything is subordinated, should not be the figures, but some abstract quality, such as the lighting of the scene, or the expression in the faces of the figures, etc.

In trimming genre or other figure pictures, always leave a larger proportion of space in front than behind the figures. A genre picture should usually have less definition than a portrait. Emphasis may be obtained by arranging the principal figure within a circle or square or other well-defined space, as by utilizing the frame of a door or window. When the subject is placed among objects of intimate association, the formality of the pose may be somewhat neglected, but the surroundings should not detract from the subject too strongly. Contrast is one of the most effective means of accentuation, as when we oppose old age and childhood in a composition.

In genre pictures, or when portraying objects with movement, it is often better to use a hand camera than to attempt the deliberate pose of the subjects for a stand camera. This applies to such objects as a man plowing, and so on.

In taking pictures including figures it is sometimes a good ruse to feign at the moment of exposure that something has been forgotten, so that the figure will resume its normal appearance, when the exposure is made.

In photographing a restless subject it is a good plan to get someone else to pose while arranging the accessories, so as not to tire the subject.

Sharpness is more tolerable in genre or portraits where there is little movement or action; in a picture showing much action there should be less detail, as it would be impossible in nature for anyone to observe it.

In such subjects as a man walking, the exposure should be made at the beginning or end of the step, to express action. Both feet should touch the ground.

In a picture including figures, the surroundings of the subjects should be harmonious; *i. e.*, do not take the housemaid in the conservatory, nor the school boy in the drawing room.

In a picture where we have to deal with one figure bending, stooping, or in any suspended action, the figure should always have room sufficient to

stand upright or to complete the movement. Parts of a composition may be traced in imagination, even after they disappear in shadows, as a wheel with spokes, part of which is in half-tone.

To avoid spottiness in still-life pictures, arrange the different colored objects together, so that when photographed their values will not conflict.—*American Annual of Photography*, 1910.

THE KING OF FINANCE.

[By permission of Mr. Oliver Lippincott, the celebrated commercial photographer, we are enabled to reproduce his famous composite picture of bank presidents which attracted so much attention in the November number of *Everybody's Magazine*. The description of the method by which the picture was made and Gutzon Borglum's analysis are taken from *Everybody's* by permission.—Ed. W. P. M.]

[The making of this composite picture consumed something over six months—from December 10, 1908, to July 27, 1909. Sittings were obtained from the presidents of every national bank in the city of Greater New York; all these different portraits used in the composite picture were made to schedule, and the front, full image of the face was used. Irrespective of the size of the different heads, the eyes and the pupil of the eye were registered. Positives were made of all the men from the original negative. The positives, by prismatic reflectors and a twelve-power magnifying glass, were registered on the ground glass, converting every fourth positive again to a negative, and again registered every fourth negative to a positive, and so on until the final negative was made, and the fifty-one individuals were converted into one portrait and character. Every eye through the entire process was perfectly registered to an absolute scale, and did not vary one-thousandth of an inch. Each individual has been given the same amount of time in this process, and forms the same component part of the composite picture. It has taken 783 negatives and positives to accomplish the work. Deducting the mistrials and the failures, it has consumed 553 positives and negatives to complete the image portrait, "The King of Finance." This picture, in converting so many characters into one, is scientific in the extreme, and Mr. Lippincott, with thirty-two years of experience in scientific photographic lines, says himself that he doubts if anything more perfect of its kind has ever been made.]

We are told that the face before us is a composite photograph of fifty-one presidents of fifty-one national banks in Greater New York. The spirit that dominates these fifty-one men dominates the course and the employment of the fluid money of the financial centre of the world. Laws—both good and bad—deprive this spirit of initiative and somewhat define the boundaries of its activities, still it is the custodian of the flood gates of the currency of all our financial wonderland.

With the fifty-one originals individually we have nothing to do. We know each Mr. Blank, and by sighting back over the zigzag line of his path can see just how he wobbles and just how big a rock he will trip over, or just what apple will tempt him from strict attention to the business in hand. We know this and can, with a reasonable amount of certainty, measure each particular soul; but we also know that the expression of a group of men is that of the

united mind, the united force or spirit of such as mate in mind and force and spirit, and their joint expression is something and somewhat of each and is not the complete mind or act or thought of any.

To those who may be skeptical as to the value of this composite, which is a mechanical retention of whatever is marked in each photograph, let us say that bank presidents are selected for certain known characteristics; that there may be exceptions in individual cases does not disprove the rule, though such individuals might disturb the ruling. If there be any such individuals in our fifty-one, they will in turn dominate and affect the common result.

It is safe to say that whatever was dominant in three or four of the individuals becomes a mark or feature of our portrait—just as it is safe to say that a single face might mutilate or obliterate several; so, if a careful analysis of the simple printing of the face were made, we should find a process similar in effect to the workings of a committee. The weak, nondescript minds gather under stronger leadership and disappear as individuals; though their votes give strength, their individuality is obliterated. So in this composite; many faces are blotted out, or rather they are taken up and used to the reinforcement of others, and the compromise is finally between, let us say, only six, with the other forty-five absorbed.

We see a large, well-shaped, evenly-balanced head, and were it not thrown slightly up, shortening the upper part, the brow would divide the face from the head in equal parts. The end of the nose again would divide the face, and the line of the mouth would still again divide the lower half of the face. These are all Greek measurements—and they prevail in the intellectual races of the world.

The hair is thin and silky and lies with a certain negligent grace upon a fine, open, unmarked forehead. He has a straight brow that seems fairly to appeal for a will of its own; full eyes that focus slightly inward and upward—a trick or habit of bankers.

The mouth is deplorably weak and full of hesitancy; and the chin—was there not squareness and purpose enough among all the fifty-one men to have made this a fine feature?

Yet with the derogatory characteristics here suggested, to me the face is full of a certain modern beauty. It is refined, mature, rather weathered in its weedy aristocracy; it is tried and tired in its relations with men and affairs, and almost quivers from the touch and wear of life.

Place a thumb over the right eye and cheek—the light side of the picture—and you will be amazed to see the eye and cheek of one of the least scrupulous manipulators in the history of American finance. But this eye and cheek are not his; this left eye and cheek are simply the reproduction of what prevails in the expression of people doing their work in a certain way. They are the eye and cheek of men used to focussing their energies on facts and at the same time working under cover—used, I mean, to observing without betraying any expression of their own.

Again, place two fingers over the face and look between them, disclosing the brow, eyes and upper part of the nose, and you will see something strongly resembling the face of one of the most constructive financial geniuses of our time.

Is it remarkable that this composite picture should produce expressions common in men who in themselves epitomize the vices and virtues of our subject? Is it not rather natural that the geniuses of finance should look like this composite? It is interesting, however,

that a composite picture of fifty-one bank presidents should lose, as completely as this does, all resemblance to any one of the originals, yet produce an individual strongly reminding us of the real Napoleons of wealth, whose pictures have played no part in the portrait.

THE ART AND SCIENCE OF ILLUMINATION.*

THIS society has been founded to bring together all those who are interested in the problems, practical and theoretical, of the art of directing and adapting light, that prime necessity of civilized, as well as uncivilized, existence, to the use and convenience of man. To advance the subject of illuminating engineering, to investigate through all its lengthened breadth the facts within its domain, to increase and diffuse knowledge respecting them, and to unite those who are devoting their energies to these things, is the object of the society. The ascertained facts are few—all too few; their significance is immense; their economic and social value is great; but the ignorance respecting them generally is colossal.

For practically a century only have there been any systematic means of illumination in use in any civilized country. Before the year 1800 there were, as means of illumination, daylight, oil lamps, rush lights, tallow dips, and wax candles. Monarch and peasant, merchant prince and workman, had alike to depend on individual sources of light at night. Only in the larger towns and cities was there any organized attempt to light the streets by oil lamps. In 1819 the authorities of the day stoutly resisted the proposal to light the then House of Commons by gas—nothing but wax candles could be admitted; but gas lighting was coming in, and Argand and colza lamps were the sole competitors until after 1850. Everything else dates since then —practically during the last half century. For paraffin lamps were not widely spread until the sixties. Arc lighting, though tried for spectacular and lighthouse purposes from the fifties, did not come into public question until about 1879. Glow lamps followed three or four years later. Still later came incandescent gas mantels and acetylene gas lights, while the newest things in both gas lighting and electric lighting are affairs of only a year or two ago. Many persons now realize the immense stride made in the introduction of the Auer (Welsbach) mantle for incandescent gas; far fewer people realize the significance of the corresponding step forward that has been begun by the introduction of the metallic filament glow lamp. We are, on both sides, in the very middle of an immense evolution in the art of illumination.

But whilst the means of illumination have thus been developing with amazing strides during a single generation, and the organized systems of distribution by municipal and urban and rural authorities and by private corporations have ramified throughout the community and brought supplies of gas and of electricity—shall I also say of oil?—to our doors, there has been another and very different development going on. I refer to the growth of that branch of the science of optics which deals with the measurement of luminous values. Photometry has been growing into an exact science by the explanation of its laws and the improvement of the instruments of

* A paper read before the Society of Illuminating Engineers by Professor Sylvanus P. Thompson, showing the recent rapid advances in the science of lighting. Reprinted from the British Journal of Photography.

measurement. It was not until 1760 that the first real discussion of photometric principles was made known. In that year Lambert, in his *Photometria*, laid down the fundamental laws, and likewise in the same year Bonguer gave to the world his *Traité d'Optique*, wherein a primitive photometer was described. Rumford's shadow photometer was invented in 1794, and Ritchie's in 1824. Then comes a long gap. Save for Bunsen's overrated grease-spot instrument, there was no important advance in photometry until the eighties, when there were produced many novel forms, some of them, including the now well-known forms of L. Weber, Lummer-Brodhun, and Rood, capable of yielding results of much higher precision in the comparison of different sources of light; also in the eighties we meet for the first time with special forms of photometer of the kind destined to play a very important part in the work of our society, many photometers measuring the values not of the brilliancy of a source of light, but the illumination of a surface.

Our primary concern is the adequate and proper illumination of things; and as we have to reduce the present chaos to an exact science, our first business is to secure some common agreement as to the measurement of illumination and the establishment of reasonable rules as to the amounts of illumination required in different cases.

Foremost, then, in the program of work for our society we put the question of the units of measurements and the promulgation of the proper definitions of them. We must secure agreement—national, and, if possible, international—as to what shall be taken as the unit of light and what as the unit of illumination at a surface.

Happily, the long-standing controversy as to the former appears to be settling itself by at least a preliminary agreement between the standardizing laboratories of the great nations. One "candle" is no longer to be a vague and indefinite thing. The new definition provisionally agreed upon is an ideal unit, in terms of which one can describe the several standards in use in different countries. If this provisional *entente* can but be ratified by a little international common sense we shall have henceforward an international "candle," such that it is the same in England as in America, equal to the *bougie décimale* accepted in France, and related to the Hefner candle of Germany in the precise proportion of ten to nine.

But we have still to find agreement on the standard of illumination. Here in England, and in the United States, we have already grown accustomed to describe amounts of illumination of surfaces in terms of a British unit—the "candle foot"—not perhaps a very happy term—one that we would readily exchange for a better—meaning, thereby, the intensity of the illumination at a surface situated at the distance of one foot from a light of one "candle." The source being assumed here to be concentrated at a point, the law of inverse squares holds good.

Adopting the candle foot as the unit of illumination, one may readily state certain facts with definiteness. All competent authorities are agreed that at night, for the purpose of reading, an illumination is required not less than one candle foot, some authorities saying 1½ candle foot. The facts appear to be that reading is impossible with an illumination of one-tenth candle foot, difficult and fatiguing with one of one-fifth candle foot, comfortable with from 1½ to 3 or 4 candle foot, but that if the illumination exceeds 6 or 8 candle foot, the glare of the page is again fatiguing and dazzling. The page should neither be underilluminated nor overilluminated. Something depends, it is true,

on the size of the print. Under a feeble illumination of, say, ½ candle foot, a type of pica size printed in a fount of bold face properly inked is legible, when one of long primer size printed in a weak way would be practically illegible. Something also depends on the state of the eye as affected by the general illumination of the surroundings. Very seldom does one find in any ordinary room an artificial illumination exceeding 3 candle foot. By day, on a writing-table placed near a north window—or near any window not receiving direct sunlight—the illumination may exceed 3, and may even attain 4 or 5 candle foot.

Until a unit of illumination was thus agreed upon, it was impossible to render any reasonable certainty to estimates of the amount of illumination in any case of dispute. What is the meaning of the term well lit as applied to any room, building, factory, workshop, or studio? Formerly the term was entirely vague. Today the answer can be given in numerical terms. Formerly judgment had to be made by the unaided eye, and the eye is notoriously a bad judge. As between two different illuminations, the powers of discrimination of the eye are very limited. The eye can equate, but it cannot appraise. It can tell with fair accuracy whether two adjacent patches are equally bright; if they are not equally bright it cannot say with any kind of proportionality what their relative brightnesses are. All photometry depends on the perception of an equality.

Photometers for the measurement of illumination have been mentioned earlier as coming first into notice in the eighties. One of the earliest in this country was that constructed by Sir William Preece, with the assistance of Mr. A. P. Trotter, for measurement of the illumination of sidewalks and pavements of streets. It has been subsequently developed by Mr. Trotter, and, as constructed by Mr. Edgecombe, is a most useful and handy instrument, telling the amount of illumination directly in terms of the candle foot. Another, by Mr. Haydn Harrison, measures the illumination, not on the horizontal, but at 45 degrees. Almost equally early with the Preece-Trotter illumination photometer was the school photometer of Petruschewsky, apparently little known in this country. Most recent of this sort is the form due to Martens.

The principles and construction of photometers are matters that have interested me for nearly thirty years. About 1880 I brought out a form of wedge photometer (modified from Ritchie's form), in conjunction with Mr. C. C. Starling, for electric light measurements. Later, I gave to the Physical Society an investigation of the errors arising in photometry from the almost universal assumption that the law of inverse squares is fulfilled. In 1882, when lecturing at the Crystal Palace Exhibition, I gave diagrams to show the effect of the superposition of illumination from two or more lamps, and discussed the variations of illumination in a street between the places of maximum and the places of minimum illumination. Twelve years ago I described a tangent photometer, which has remained a mere optical curiosity.

No one can have worked at the photometry of modern lamps, or of the illumination of surfaces lit by lamps, without becoming conscious how much misunderstanding there is of the elementary laws of illumination. There is Lambert's cosine law, admirable and simple, if only it were not in so many cases vitiated by the presence of organized—that is, specular—reflection. There is the law of inverse squares, itself a universal geometrical law of action radiating from a point, so fatally and absolutely misleading if applied

to any other case than that of action from a point.

One subject on which more information is badly needed is the specific brightness of surfaces of different kinds when subjected to a standard illumination. For instance, how much light is reflected, per square inch, when illuminated with an intensity of 1 candle foot, from such materials as oak panelling, whitewash, brown paper, or the surface of a red brick wall? Here in this theatre the walls are tinted of a dark Pompeian red or maroon, which reflects but little light. The extra annual expense on lighting that might be saved had a lighter tint been used is surely worth considering.

The subject of diffuse reflection which here comes into play has indeed been investigated partially by several persons. There are Dr. Sumpner's researches of 1894 and those of Mr. Trotter on white cardboard and other white matt surfaces, but how few others! Again, there is the subject of diffuse refraction, which occurs in ground glass shades, ribbed and corrugated glass panes, and other devices for diffusing the concentrated light of lamps. Yet how little does any optical book tell us on the subject of diffuse refraction. Reflection and refraction as they occur at dull or irregular surfaces appear to be of no importance to the academic writer of text-books of optics, but they are of vital interest to the illuminating engineer. Again, there are a number of semiphysiological problems that demand investigation and settlement. We all know that our eyes have an automatic diaphragm which stops down the entering light to protect our eyes from glare, rendering us relatively insensitive to bright lights. Does anyone know whether the contraction of the pupil depends on the total amount of light entering the eye or on the intensity of the image on local patches of the retina?

Again, we all know how an unshaded arc lamp, or even glow lamp, "cuts" the eyes by the very concentration of its beams, even when it may be many feet away, while the same actual amount of light, if diffused over a greater apparent surface, as by a surrounding globe of ground glass, is quite readily endured, and does not produce the same painful sensation. Does anyone know how great is the specific brightness of surface that the eye will tolerate without experiencing this discomfort? We can look at a white cloud or at the blue sky without pain. Can we endure a specific brightness of so much as one-tenth of a candle per square inch?

Our eyes are provided by nature with a most exquisite and automatic iris diaphragm, which opens in the dark and closes in the light, thereby shielding us partially against the evil effects of glare. Putting it in the language which the photographer uses to describe the stopping down of a camera lens, the automatic iris of our eye can close the pupil so that while in a comparative darkness the aperture opens to $f/2$ or $f/2.5$, it closes amid a brilliant surrounding illumination to about $f/20$. Suppose we are looking out in relative darkness, and are confronted with a brilliant patch shining with a specific brightness of one-tenth of a candle per square inch, we shall feel a certain amount of discomfort from its glare, and if we regard it steadily for a second or two will, on closing our eyes or turning away, see those persistent colored images that trouble us after looking at any very bright light; but now let the same brilliant patch be placed against a bright background. Far more light will enter the eye; the automatic iris of the eye will in a few moments have contracted, stopping down the lens of the eye so that it will be far less sensitive. In these circumstances, will the patch that has a specific brightness of one-tenth candle per square inch pain or dazzle the eye?

I ask the question, but I do not know the answer. Does anyone know what the answer ought to be? It is a simple question, and a few experiments would soon settle it. Of course, one must admit that the automatic action of the iris diaphragm, important as it is, does not by any means account for the whole of the facts about the want of proportion between the intensity of a stimulation and the intensity of the resulting sensation. Fechner's logarithmic law of psychophysics gives a clue, but even this does not seem capable of expressing, much less of explaining, the facts about the observed want of proportionality. Why should a light of tenfold brilliancy not produce a sensation ten times as intense? And why should a greater brightness of the general surroundings relieve us of the annoyance of those colored after-images? After-images can be seen even under extremely feeble illumination, as I have again and again found. Has anyone discovered any exact law governing their occurrence?

All these queries show that there is plenty of work awaiting us, even in the mere collection and completion of such scattered information as is already available; but there are even more important questions before us, more important, not in science, but in their relation to the public welfare and the economics of the community.

Now that we have a standard of illumination and simple portable instruments that will measure it, there can be no excuse for inaction or ignorance in applying that knowledge to securing proper illumination for public and private buildings.

Let me begin with school buildings. They are the most important; for whatever bad results flow from bad lighting of churches, factories, or railway stations, those which result from the bad illumination of schools are far more to be deplored—they imperil the eyesight of the next generation.

All ophthalmic surgeons agree that the cause which forces the children into increasing shortsightedness is protracted poring over books under an insufficient illumination. Even in what an inspector might call a well-lit school the illumination at the surface of the desk may be quite insufficient if the desks are badly placed, or the windows insufficiently high, or the lamps badly distributed.

All educational authorities ought henceforth to insist on rational requirements as to lighting. Hitherto they have had nothing definite to specify; now that illumination photometers are available, they ought to require a mimimum of 1½ candle foot at the worst-lighted seat in the schoolroom, and not depend on purely architectural rules about heights of windows or areas of window space. In England the Board of Education, in its Building Regulation (1907), Rule 6, clause c, has laid down a foolish rule: "Skylights are objectionable. They cannot be approved in schoolrooms or classrooms." That perfectly monstrous provision ought to be at once repealed. The universal experience of the textile industries, where adequate lighting of spinning and weaving machinery is a prime necessity, is that no method of lighting is so satisfactory as skylights in roofs specially constructed to receive light from the northern sky.

Hitherto little attention has been paid by either local or central authorities to conditions affecting the lighting of factories and workshops. It is true that the factory inspectors require periodic whitewashing of factories, but that is for sanitary reasons, not primarily to secure better illumination. The Home Office has its regulations as to temperature and degree of moisture required or permissible in the different classes of factories and workshops. Then why not also similar regulations as to the

proper amount of illumination? Surely the eyesight of the workers is as well worth protecting from injury as their lungs and their limbs. So far as I am aware, Holland is the only country in which legislation has fixed a statutory amount of illumination in factories, the figure there being from 10 to 15 candle metre, equivalent, therefore, broadly, to the value of 0.9 to 1.35 candle foot.

Architects are often blamed for deficiencies in the lighting of the buildings they design, perhaps more often for the deficiencies found at night by artificial lighting than for those of the lighting by day. For this the fault rests no doubt largely with the persons who have installed the lighting arrangements, and one must not blame the architect too severely for having been as ignorant as all the rest of the world about the principles of illumination; but henceforward, when once it is known that much illumination is required in the rooms of different kinds, the architect ought in his specification to set down, with appropriate numerical values, what degree of illumination is requried in the various parts of the building.

I venture to suggest that it would be a good thing if, in the public interest, our society, or some committee appointed by it, could draw up a model specification, or model clauses for architects to insert in their specifications, in which the proper way of prescribing the requisite amounts of illumination in different classes of cases should be set forth.

Outside all these matters of more public interest, there are topics enough to occupy our society for many months to come. We shall have discussions on several interesting subjects during next spring, and there are many problems awaiting solution. When all else fails us, we can turn to the eternal question of the measurement of color. We have also the long outstanding problem of the production of light without heat, accomplished in nature by the firefly, but unrealized by any artificial lamp. We might turn to discuss special cases, such as the flashing lights of lighthouses, or the special lights needed in the hospital for the detection of rashes or the treatment of disease. Amid such endless ramifications of our subject there is no fear of coming to a premature end of our program. There is, indeed, abundance of work before us.

WINTER TROUBLES AND WINTER PRECAUTIONS.

WINTER brings with it considerable inconvenience, and to none, perhaps, greater than to photographers, particularly if they are attended with a frozen water supply, for example.

Although up to the present there has been no prolonged severe weather, yet it has been cold enough to occasion inconvenience, and sometimes trouble, the cause of which has been unsuspected by some whose practical acquaintance with photography is somewhat limited. Indeed, we know of more than one instance of trouble, due entirely to depressed temperature, the cause of which was actually unrealized by the photographers, yet they were professionals, though, we may add, not with a very extended experience in the business. The trouble here referred to was at first attributed to the quality of the plates; they were charged with being slow, though they were of a very quick brand; also that they would not yield sufficient printing density. In each case the difficulty, when the cause was

explained, was got over by warming the developing solutions and the dishes to about 56° or 70° F., as well as the dark room itself. It is commonly recommended at this season to warm the developer up to this tempearture, but a little consideration will show that the advantage gained is quickly discounted if the temperature of the room itself is not much above 40°, and this is frequently the case with some dark rooms. Under such conditions the solutions rapidly cool, and the advantages, gained at first, become next to nil before the development is complete, if it is at all long, and in the case of underexposure it may necessarily be so.

When there are no other means of heating the room, a kerosene stove becomes very convenient. One with a four or four and a half inch wick will keep a good-sized dark room at a genial temperature, and the solutions in good working order during the daytime, and with a common kerosene lamp, with an inch wick, will do the same during the night with the door shut, notwithstanding that the outside temperature may be at the freezing point. Objection is sometimes raised to kerosene stoves on account of smell. This objection becomes groundless, as it does with oil lanterns, if the wicks be kept nicely trimmed and the outsides of the reservoirs perfectly clean. Although the fumes from a neglected oil stove are unpleasant to smell, they, unlike those from coke or gas, have no injurious action on photographic operations.

Depression of temperature retards chemical action, and has a marvellous effect on the fixation of both negatives and prints. They fix much slower than when the solutions are warmer, but in the case of negatives the effect can be seen, and if care be taken that the plate remains in the fixing bath for double the time it took to remove the bromide of silver, not much trouble will be met with as regards that operation. But if not, and the negative has to be intensified, stains may well be anticipated. In the case of paper prints there is no such guide as to complete fixation and the conversion of the hypo-silver salts into the freely soluble condition, and, as a result, yellow stains frequently make their appearance when the prints are finished, owing to their being insufficiently fixed. At this season of the year, if the fixing bath is anything under 30° and the room is cold, at least double the usual time in the solution should be allowed to insure that the prints are perfectly fixed, and the hypo-salts of silver brought into the freely soluble state necessary for their entire removal. Even when this is done there comes the question of washing.

When the water is very cold it has not the same solvent action on the hypo in the films, whether plates or paper; hence, unless the washing waters are warmed, a longer time should be given to the washing; but in the majority of cases this is not done. Indeed, when the operation is intrusted solely to inexperienced lads and girls it is often curtailed on account of the unpleasantness of having to be continually dabbling in abnormally cold water. Where the albumin, or the collodio-chloride, processes are employed this is not so likely to be the case as with them. Warmer or even hot water may be employed for the washing. This treatment the majority of gelatine papers will not stand.

Having alluded to some of the troubles that winter cold may bring about, there is perhaps a still greater one that may beset the professional worker—namely, a frozen water supply. This, in the greater number of cases, may be avoided were a few timely precautions taken; yet they are too often neglected until too late. There is now sold by most of the large hardware stores a thick felt, made specially for binding round

exposed water-pipes. This felt is an excellent non-conductor of heat, and affords a good protection to the pipes. In place of that the hay bands, with which trusses of hay are bound together, if wound round the pipes answers well. When the service pipe from the street main is laid near the surface of the ground, as is too often the case, six inches of stable manure laid on the ground above it will prevent the frost from reaching the pipe. Another good way of preventing the water from freezing in the pipes is to leave the taps continually dribbling. This, of course, the water companies would object to if they knew it; but they need not be consulted on the subject. If the water is paid for by meter they raise no objection, of course, and the slight extra cost to the consumer is sometimes amply compensated for in the avoidance of a frozen-up supply and, perhaps, burst pipes. If perchance, for want of due precaution being taken, the pipes get frozen, they should, without delay, be examined from end to end to see if there are any bursts. If there are, they will be seen as enlargements of the pipe at those places, and the services of a plumber should be sought at once to do the necessary repairs. If this be neglected, it may result in the flooding of the place when a thaw sets in, and possibly much damage being done.

TRANSPARENCIES FOR WINDOW DECORATION.

BY R. HENRY.

I WONDER what has become of the once popular window transparencies? was the question asked recently by a writer. On reading this, I, too, began to wonder, for one seldom sees them now, although at one time, years ago, it was quite a common thing to see them in the windows of many houses. Is it that they are too easy to make, or has the hand camera, with its small-size plate, made it impossible to work in any size above a 3¼ square lantern plate? And yet one is as easy to produce as the other—in fact, it amounts to the same thing; we put our lantern plate pictures away in a box only to be brought out, perhaps, on rare occasions, but a window transparency we can have always on view. And what better way could we have of showing our work? There is no process that gives us so much value for our money; no print, not even carbon, can, in my opinion, reproduce the detail and gradation of a good negative in the same manner, for any picture viewed by reflected light must lose some of its finer points—they are covered up, but in a transparency we can miss nothing.

For those workers who have not yet tried their hand at transparency making I give below a few hints which I hope will bring a few recruits from among those of my readers who have hitherto confined themselves to paper prints, although more experienced workers will find an equal amount of pleasure in making these transparencies. There will be a good deal of what follows with which they will be quite familiar, having gone over the same ground when making lantern slides, and I must ask them to forgive me starting at the beginning.

Transparencies are contact or enlarged positives from a negative, and made on a glass plate coated with emulsion similar to the one on which the negative was made, but as we are not confined to a fraction of a second ex-

posure we can use a very much slower plate with this advantage: a slow plate can be made to give a very much finer grain than a fast one, and we shall also be able to use a stronger light in the dark room to work by, which is a great boon.

We, therefore, procure a box of specially coated transparency plates; these can be had of many makes, and they are all good. We can take our choice, however, of bromide plates or "gaslight," the latter being a mixture of bromide and chloride, which is much slower and capable of giving various colors under a modified developer. We will make our first trial with the former, and take a box of bromide transparency plates for black tones, and the same size as the negatives we are going to work from.

This brings us to the question of size, and, providing our negative contains all we want of our picture and no more, we can include the whole of it in our print, and, needless to say, the larger the better. In some cases where we only want part of the negative, it is better to mask out the portions that spoil our composition, in the same way that we should improve a paper print by cutting off what we do not like.

To proceed, we take our box of plates, a printing frame, and the negative into the dark room. We can here, as I stated previously, use a good light, and the most convenient to my mind is a yellow hock bottle lamp burning a candle, which will illuminate the room all round.

Now place the negative face up in the printing frame and on top of it place a very thin paper mask. This may be cut out of black "needle" paper, and should be wide enough to cover the outside edge of the negative, about a quarter of an inch all round, or in larger sizes it can be wider according to taste. On top of the mask face down place a transparency plate and behind this a piece of black paper, sufficient to protect the back of the plate from any light that may fall on the crack of the printing frame back, and finally we insert the back of the frame.

We are now ready to expose, and we can do this to a gas flame, and as it is possible to very much under- or over-expose, we advise some means by which we can measure the amount given. This would be easy if time were the only factor, but we have to bear in mind that the distance at which we hold the frame from the light is of equal importance.

So we will tie a piece of string to the gas bracket just below the burner and along it tie a knot about 12 in. distant from the flame. Now, by holding the knot between the fingers while holding the printing frame, we shall be sure to have our distance the same for each exposure; this will leave our question one of time only. And to determine this I should advise a trial exposure in strips in the following manner. Cover the front of the printing frame with a piece of card, leaving a strip exposed, say 1 in. wide, and give this 2 seconds, then draw the card along another inch and give another 2 seconds, and so on, so that if we make four exposures, the last will be 2 seconds, the others 4, 6, and 8. We shall then see after developing which is about right and act accordingly.

Before passing on to development, I wish to give two precautions which will save trouble later. One is, see that no dust is on the negative before inserting the plate, and the other is, avoid touching the sensitive surface of the plate with the fingers. Any portion so touched seems to acquire the property, possibly due to the natural oil of the skin, of repelling the developer, and markings result.

We are now ready to develop our latent image to a visible form. Everybody has his own special favorite in the developer line, and there is also a formula given on each box, which the

maker of the plate recommends, and, as he knows what is best for his own goods, I should strongly advise using this; but in case any reader cannot adhere to one make of plates, and wishes to use one solution for all, I give the following formula, which has in my hands always proved reliable, is simple, and keeps well:

Metol	40 grains
Hydroquinone	50 grains
Sodium sulphite	2 ounces
Sodium carbonate	1 ounce
Water	20 ounces

and add one or two drops of 10 per cent. bromide solution to each ounce before use.

To make this up dissolve in the order named, but do not use all the water for the metol and hydroquinone. Dissolve these two in half and the sodium sulphite in the other half, then mix and afterward add the sodium carbonate, for if you add sulphite dry to the first two in solution, the metol has a nasty habit of leaving the solution and forming a powder at the bottom of the bottle.

To develop we proceed as in negative making, but the plate must not have the same appearance—that is to say, it must not be black all over as a negative is when carried far enough.

The right point to stop developing is best judged by looking through the plate at the light, and when sufficiently dense, after a slight rinse, we transfer it to the hypo bath; and here one word. Hypo is cheap; make it a rule to use a fresh bath for each batch of work. Stains are easier to avoid than to get rid of.

Fix the plate thoroughly—it is always well to leave it in the hypo as long after the milky deposit has disappeared from the plate as it took to go—afterward wash in running water for half an hour, and stand to dry where it will not get dusty.

Our transparency is now ready for mounting, and as the film side is still very tender we must protect it from scratches and atmospheric influences. The easiest way to do this is to place it face down on a clean piece of ground glass, and then bind the two together all round the edges with strips of paper; and here again there is room for personal taste. The binding can be supplemented with a frame, or lead and glass work mounting.

There are many ways of varying the color of our finished picture, which space forbids me to go into fully, but I give the following, which has given a novel effect in my hands within the last few days. The washed transparency was toned to a sepia by the method recently given in a contemporary as suitable for bromide prints, as follows:

It was bleached in a solution of potassium iodide:

Potassium	100 grains
Water	10 ounces

then add

Iodine	45 grains

And then, after well washing, it was toned with sulphur by immersing in

Sodium sulphite	2 or 3 crystals
Water	4 ounces

The transparency was then well washed and dried.

The cover glass was another transparency made from a cloud negative with the lower portion masked to give clear glass. This was toned blue by first soaking in

Potassium ferricyanide	1 dram
Water	4 ounces

and after well washing, and again in

Ferrous chloride	1 dram
Water	4 ounces

and again well washing before drying.

The result was, to my mind, very effective.

And now a word about enlarging from small negatives for large transparencies. By enlarging I do not mean going to any great size, but, say, to half or whole plate, which, as a rule, will be quite big enough for a transparency to hang in a window.

In the first place, we want a good negative, not too dense, but free from blemish, pinhole, etc., for each of these will show far more in the larger size than they would in the contact print. Our mask may be placed next the negative or in contact with the plate, and I would suggest the latter, as then we are more sure of having the picture square on the plate.

Any of the usual means of enlarging may be used, but for this particular process a daylight enlarging camera is by far the simplest. We can then use the focussing screen and dark slide in the same way as usual when negative making, and save the plate from any stray light that may be wandering around.

In the ordinary way an enlargement framed and hung on the wall is usually looked at from a distance, but in this case a transparency is often looked at close to, and, for this reason, we must get as sharp an image as possible—that is, for most subjects. There are some compositions, however, consisting of large masses of light and shade in which even a transparency would benefit by suppression of detail.

Before closing, there is one method I have recently seen, by means of which transparencies may be made in a very cheap manner. A ferro-prussiate print is made (it must be printed deeply, as we are going to look through it), and is rendered semitransparent by waxing or greasing it with poppy oil, castor oil, white paraffin wax, or vaseline, and either of the latter two I have found to answer well. Lay the print face down on a sheet of glass and rub the medium well into the back, until the paper has absorbed an equal amount all over, and then wipe clean with a piece of flannel. The print may then be mounted between two sheets of clean glass and treated in the same manner as a glass transparency. The blue color is, of course, only suitable for some subjects, such as sea and sky, or moonscapes, but if black is desired I have no doubt a platinotype print would serve, if treated in the same way, or there is a method given for turning the blue print into a black one.

But whichever way you go to work, give it a trial, and you will find the result an agreeable change from the usual thing.

Development of Ultra-rapid Plates.—The *Photo-Revue* suggests the following developer for giving negatives with full detail, when using plates of the ultra-rapid type:

Water	100 c.cm.
Anhydrous sodium sulphite	3 grams.
Diamidophenol	0.5 grams

The temperature of the bath should be 18° C., or about 65° F., and one should not be afraid of prolonging development until the whites become slightly veiled.

Another formula given contains hydroquinone alone, and is as follows:

Water (distilled)	1000 grams.
Pure sodium sulphite	75 c.cm.
Potassium carbonate	75 grams.
Hydroquinone	10 grams.
Potassium bromide	5 grams.

This solution should be made up hot, and when ultimately used, one part of it should be mixed with three parts of water, if required for time exposures; otherwise it is employed in the concentrated form.

AWARDS, PROFESSIONAL CLASS, 1909 KODAK ADVERTISING CONTEST.

THE contention that better pictures for advertising purposes could be produced by means of photography than by any other artistic method has been still further justified by the result of the 1909 Kodak Advertising Contest.

It is gratifying to note the continued interest of competitors in former contests, and also in highly artistic work submitted by newcomers in the field.

The jury which passed on the work was highly competent, consisting of Mr. Rudolph Eickemeyer, of Davis & Eickemeyer; Mr. A. F. Bradley, ex-president of the P. P. S. of New York; Mr. Henry D. Wilson, advertising manager of *Cosmopolitan;* Mr. C. C. Vernam, general manager of the Smith & Street publications, and Mr. Walter R. Hine, vice-president and general manager of Frank Seaman, Incorporated, one of the largest, if not the largest advertising agency in the United States. Mr. Frank R. Barrows, president of the P. A. of A., was announced as one of the judges, but was unavoidably detained, Mr. Bradley acting in his place.

Pictures which were not awarded prizes have been returned to their owners, but in this there will be a slight delay, as the Eastman Kodak Company wish to go carefully through them for the further selection of pictures for purchase. During the winter they will publish a booklet of prints from among the prize winners, sending a copy to each contestant, and at that time will announce the terms of the 1910 competition.

The prize winners — Professional Class:

First prize, $500, William Shewell Ellis, Philadelphia.

Second prize, $400, Percy De Gaston, Lincoln, Neb.

Third prize, $250, Mrs. Gertrude Kasebier, New York City.

Fourth prize, $150, Bruguiere & Eisen, San Francisco, Cal.

Fifth prize, $100, S. H. Lifshey, Brooklyn, N. Y.

TRADE NOTES.

THE Series Six Cooke anastigmat portrait lenses still continue to increase in popularity, and their success among the best photographers has been very marked during the past year. Their wide range of usefulness has made these lenses popular. The mere revolving of the front portion of the mount to a given point introduces that roundness and softness desired by the good professional when photographing heads at close range, and this has the effect of gaining considerably in depth of focus. For groups and figure studies, the softness may be reduced slightly at pleasure. The Series Six lenses are extremely compact. They are less bulky than other makes of equal focus and aperture, and may thus be used for commercial work outdoors, with or without a focal-plane shutter. With the revolving portion of the lens-mount set to its farthest limit these same lenses give mathematically fine definition throughout their plates, even with the full aperture of $f/5.6$, and may be used for copying and enlarging with the same success as may the other series of Cooke anastigmats. It is probably true that no other portrait anastigmat lens has so wide a range of usefulness.

ANSCO NEW ENGLAND BRANCH OUTGROWS ITS FORMER QUARTERS. The demand for the high quality goods manufactured by the Ansco Company is growing so rapidly in all sections of the country that one branch after the other has been compelled to enlarge its quarters in order to cope promptly and effectively, as is the policy of the Company, with the ever-growing demand.

The New England branch, formerly located at 101 Tremont street, Boston, Massachusetts, has recently moved to 24 Cornhill, Boston, Massachusetts. It will carry a larger stock on hand than was possible before, so that it will be a

great convenience to the independent dealers, through which channels the ANSCO COMPANY distributes its goods to the consumer. The personnel of the branch will be increased accordingly. Be sure to send your orders to No. 46 Cornhill, Boston, Massachusetts.

AMERICAN-MADE post cards are being used in preference to the imported European cards. One firm in particular, The National Colortype Co., of Cincinnati, Ohio, have made rapid strides in improving this great American industry.

They have devoted many years experimenting with and improving hand-colored cards, and are now in a position to deliver orders in two to three weeks, as against the four to six months required to procure foreign cards. They will gladly send you a sample set of post cards if you write and mention "WILSON'S."

A NEW ANASTIGMAT. The Double Anastigmat "Eurynar" is a new introduction by the optical works of G. Rodenstock, of München, Germany, and is one of a variety of photographic lenses manufactured by this firm. The "Eurynar" was placed on the market late in May, 1909, and the demand has proved so great that the works have been enlarged to insure most prompt deliveries after January 1. Messrs. Jas. Frank & Son, of Augusta, Georgia, the American Agents, received lens No. 10,822, the last shipment from the works, showing average sales of the "Eurynar" to have been nearly sixteen hundred (1600) lenses per month.

The "Eurynar" has the distinction of coming from one of the famous optical works of Germany, and from a country where they know what is good in optics.

THE C. P. GOERZ AMERICAN OPTICAL CO. advise us that the Chicago or Cook County agency held by Jackson & Semmelmeyer was formally discontinued on October 30, 1909, and any statement or advertisement to the contrary is incorrect. Burke & James, of Chicago, have been appointed agents for the middle Western States for the Goerz lenses, as announced in our last issue.

GEO. MURPHY, INC., 57 E. Ninth St., New York, advise us that the *British Journal Almanac* for 1910 is selling out rapidly. Those of our readers who appreciate this greatest of all annuals had better make sure of a copy by placing an order at once.

J. H. DALLMEYER, LTD., advise us that their lenses were awarded a commemorative Diploma at the Imperial International Exposition held in London in 1909. It will be remembered that at the Franco-British Exposition of 1908, two grand prizes were awarded to Messrs. Dallmeyer, Ltd. The awards gained were for photographic lenses, telescopes, etc., and were the only awards made. Burke & James, of Chicago, have the American agency for these celebrated lenses.

JUDGING by the samples of photographers' business stationery we receive daily, there is room for much improvement along this line. The photographer should bear in mind that to create a good impression for his studio he must use care and discrimination in the choice of paper and printed matter. The best that can be had is none too good, and pays for itself in the long run. The Mittineague Paper Co., of Mittineague, Mass., manufactures some of the finest paper produced. It will pay you to send for their sample book. Good stationery in photography is a necessity, not a luxury.

WHY go to the expense of a bromide enlarging outfit when you can get the finest enlargements on Velox, Argo, Cyko, and Artura at less cost than you can make bromide enlargements. Messrs. Woods & Von Bremen, of 27 E. 22d street, New York, have invented a process which enables them to produce the finest enlargements on any of the surfaces of the many development papers on the market. By a method of illumination, exclusively their own, enlargements are produced in an incredibly short time, which affects the cost of production very favorably. The enlargements have all the sparkle and gradation of contact prints. We have seen the work done and the prints produced, and have no hesitation in recommending the process to our readers. Send in a trial offer and be convinced.

THE G. CRAMER DRY PLATE CO. desire to direct attention to their new "Spectrum" and "Spectrum Process" plates, as being the highest type of truly panchromatic plates manufactured. They will be found to possess a range of sensitiveness to the red, and are especially adapted to process work. Further particulars can be had of the Cramer Company.

OWING to the unlooked-for response to the "Agfa Metol Contest," the Berlin Aniline Works, of 215 Water Street, New York, who are the sole agents for the Agfa Products, wishes to announce that they will continue this contest until January 1, 1910.

Ten amateurs have been presented with orders for one ounce "Agfa Metol" on contest closing August 1, but all the others who are still in this contest will count in on January 1 closing.

Ask your dealer all about it, or write Berlin Aniline Works.

THE BAUSCH AND LOMB-ZEISS Portrait Unar is very fast becoming a leading favorite. Capable of producing equally good results, whether portrait, bust, three-quarters, full-length figure, or group, it produces negatives that possess the brilliance, color, definition, sharpness, or, if desired, the softness that mark superlatively good photography. A descriptive circular with prices and interesting data concerning this famous lens will be sent on request. BAUSCH AND LOMB OPTICAL COMPANY, Rochester, New York.

WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
L. W. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

EDWARD L. WILSON, 122 EAST TWENTY-FIFTH STREET, NEW YORK
Entered at New York Post-office as Second-class Matter

Yearly subscription in advance, United States and Mexico, $3.00; Canada, $3.25; Foreign Countries, $3.50; Single copies, 25 cents. Subscriptions begin with current issues unless otherwise ordered. Original manuscripts on photographic subjects are solicited, and, if accepted, will be paid for on publication.

EDITOR'S TABLE.

OWING to the size of the engraving, we were unable to run the names of the photographers comprising the unusually interesting group reproduced elsewhere in this issue under the picture. The photograph was made in the reception room of the Garo studio, Boston, Mass. Reading from right to left, the men are Garo, Pierce, Stein, Strauss, and Rinehart. Many of our readers will, of course, recognize the different members of the group, They are all excellent likenesses.

ONE of our contributors complains that his article, which appeared in our last issue under the title "Sepia Tones without Redevelopment," is rendered less clear and effective by the use of the editorial blue pencil on his original title, which reads, "How to Make Sepias without Redevelopment and Eliminate Objectionable Yellow and Green Tones in Developing Papers." We are sorry if our pruning of this lengthy title impaired the character of the article.

MR. H. SNOWDEN WARD informs us that although he has relinquished the editorship of *The Photographic Monthly* founded by Mrs. Ward and himself in January, 1894, the change will leave him more (not less) closely in touch with technical and pictorial photography. He will continue to contribute to his old magazine, and will also contribute to the principal British weeklies. He also expects to spend at least three months at the beginning of each year in the United States and Canada, lecturing and in the interests of *The Process Engravers' Monthly* and of *Photograms of the Year*, which he will continue to edit. During January, February, and March his address will be 122 W. 25th St., New York.

"THE MARVELS OF PHOTOGRAPHY," the lecture demonstration arranged by Mr. H. Snowden Ward, F.R.P.S., will be first given in this country under the auspices of The New York Camera Club, at the end of the second week in January. It is booked by the Professional Photographers' Association of New York for Buffalo on the 4th of February, and for New York, and by lecture courses for Pittsburg, Cleveland, Ohio, and for cities in the New England States, including Concord, Exeter, and several others. Negotiations are in progress with many other organizations, and seem to promise a comprehensive course through the Eastern States.

Mr. Ward has also booked a considerable number of dates for his lectures on literary subjects—The Canterbury Pilgrimages, Shakespeare at Home, and The Humor and Pathos of Dickens, all of which are illustrated with slides by Mrs. Catharine Weed Ward.

AN exhibition of original lithographs by Henri de Toulouse-Lantree (1864-1901) will be held at the Little Gallery of the Photo-Secession, 291 Fifth avenue, New York, December 20 to January 14. The gallery is open from ten to six daily, Sundays excepted. The next exhibition, opening on January 15, will be devoted to a series of original photographs by Edward J. Steichen, and will be an unusually interesting exhibition. Visiting photographers should make a point of attending.

The British Journal of Photography Almanac 1910, edited by George E. Brown, F.I.C., 1320 pages, paper covers, 50 cents (postage, 25 cents extra), cloth, $1.00 (postage, 35 cents extra), American agents, George Murphy, Inc., 57 E. Ninth St., New York. Our old friend, popularly known as the "B. J." almanac, is as fat and as full of information as ever. A most interesting feature is the "Epitome of Progress," carefully compiled by Editor Brown. As a reference book to things photographic, the "B. J." has no equal. Our advice is to secure a copy while it may be had.

The Schriever Studio "De Luxe" is the title of an elaborate and well-printed and illustrated circular describing Mr. J. B. Schriever's celebrated Scranton Studio. All departments are well described, and as a piece of good advertising it is bound to have a telling effect.

COOKE PORTRAIT LENS

Series Six (with Diffusing Device), F / 5.6

This lens has the capacity of three in one. For groups, figure studies, or heads its success is just the same. It has lightning-like rapidity combined with definition either sharp or soft, as desired. The diffusing device is simplicity itself, and if set to zero, gives to the lens that wonderfully brilliant defining power characteristic of all Cooke anastigmats.

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JAMESTOWN, N. Y.

Vol. XLVII ✣ ✣ ✣ ✣ No. 638

FEBRUARY, 1910

WILSON'S PHOTOGRAPHIC MAGAZINE

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Frontispiece Engraved from a Photograph by Harold Cazneaux, Engraved Supplements from Photographs by Cleo S. Bourgeois, Rudolph Duhrkoop, I. Strauss, Mrs. W. W. Pearce, and Sherwell Ellis.

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Ansco Company

Binghamton, N. Y.

Portrait by HAROLD CAZNEAUX

From American Annual of Photography, 1910

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVII FEBRUARY, 1910 No. 638

THE MILWAUKEE CONVENTION.

THE printing below of the report of the annual meeting of the Executive Committee of the Photographers' Association of America marks the formal opening of the convention season of 1910.

In size and influence the National Convention naturally overshadows every other convention, and, regardless of his State or sectional affiliations, every photographer throughout the country should take an intelligent interest in the National Association and its annual convention.

The week beginning with July 11 is the time, and Milwaukee is the place. We think the time is well chosen, and Milwaukee is in every respect an ideal convention city. It is already famous along certain lines, and it remains to the photographers to make it famous for its 1910 convention.

The Rochester convention put new life into Association affairs, and it remains to be seen whether it was merely a flash in the pan or the beginning of a new era. Previous to the Rochester meeting the affairs of the National Association had sunk to a somewhat low ebb, and it was the hope of those most interested in its welfare that 1909 would be the turning point. Thanks to ex-President Barrows and his able staff of assistants, the predictions that the Rochester convention would be a great convention were more than fulfilled.

As one swallow does not make a summer, neither will one successful convention make a permanent improvement in the Association. One success must be followed by another. President Proctor and the officers elected to assist him are thoroughly capable of organizing and carrying through another success, but to do so they need the active coöperation of every member of the Association.

A first-class program has been arranged; the most successful features of the Rochester meeting are to be repeated and new ones added. The Congress of Photography, which had a very encouraging beginning last year, will again assemble, and it is to be hoped that the consolidation and closer working union of the State and National bodies will be carried a very considerable step nearer to a complete and harmonious plan.

The Women's Auxiliary will be a valuable addition to the Association, and a big effort will be made to attract the commercial photographers—a body of workers who have hitherto been somewhat overlooked. Too many photographers look upon the portrait as the only money makers in photography. The possibilities in the commercial field are as yet untouched.

Let the members of the Association make up their minds now that they will attend the Milwaukee meeting, and those of our readers who are not members join the Association and attend, and another success is assured. The stronger the Association grows the greater will be its influence, an influence that is bound to benefit every professional photographer.

PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

Report of the Executive Committee.

THE Executive Committee of the Photographers' Association of America, in executive session at the Hotel Pfister, Milwaukee, January 12, 1910, to arrange for the Thirtieth Annual Convention. *All the officers* were *present, as follows:* A. T. Proctor, President; G. W. Harris, First Vice-President; Ben Larrimer, Second Vice-President; L. A. Dozer, Treasurer; J. H. C. Evanoff, Secretary.

The outgoing Secretary handed in the following financial report:

Photographers' Association of America.

In account with G. W. Harris, Secretary:

Total received for space . . .	$3272	
Total received for advertising . .	945	
Total received from old acct. . .	12	
Paid to L. A. Dozer		$4229
	$4229	$4229

Treasurer Dozer then handed in his account for the previous year, as follows:

Summary of Treasurer's Account for 1909, Photographers' Association of America.

RECEIPTS.

Cash on hand Jan. 1, 1909	$4698.74	
Received from memberships and dues	4054.50	
Received from sale of ladies' pins	96.50	
Received from Secretary for advertising and floor space	4229.00	
		$13,078.74

EXPENDITURES.

Paid out on vouchers, 642 to 932, inclusive . . .	$6595.52	
Cash on hand January 1, 1910	6483.22	
		$13,078.74

(Signed) L. A. DOZER,
Treasurer.

President Proctor appointed J. H. C. Evanoff and Ben Larrimer as a Committee to audit the accounts of the Secretary and Treasurer. The accounts were found correct, and approved.

Time and Place of Meeting.

After a thorough canvass of the dates most suitable, the motion was made and seconded that the Thirtieth Annual Convention of the Photographers' Association of America be held during the week of July 11, 1910, and the Auditorium in Milwaukee, Wis., was selected as the place of meeting.

School of Photography.

The School of Photography having met with such favor at the previous two conventions, it was unanimously decided to again hold a School of Photography, under the supervision of the most expert photographers that can be procured.

The Picture Exhibit.

As the non-competitive exhibit has proved itself entirely successful, the Board has decided to adopt the same policy for the convention of 1910.

Headquarters.

The Hotel Pfister was selected as official headquarters.

The Prize for the Best Invention, Etc.

The sum of one hundred dollars was set aside to be awarded to the best invention, process, apparatus, or appliance pertaining to photography, and which has not heretofore been shown or exhibited at any previous National Convention.

Publicity.

The Secretary was instructed to arrange for a systematic plan of publicity, to begin at once, under the supervision of the Executive Board.

Congress of Photography.

Arrangements were made for the second meeting of the Congress of Photography, and the Secretary instructed to call upon the State Associations to send their duly appointed delegates thereto.

Federation of Women Photographers.

The Executive Board decided to coöperate in every way with the plans submitted by the Federation of Women Photographers, a branch of the Photographers' Association of America, inaugurated at Rochester, 1909.

Commercial Photography Section.

On motion, it was decided to invite all commercial photographers to join the Association and take part in the convention. A special commercial photographic display being planned, providing sufficient participants can be obtained.

Entertainment.

The Milwaukee photographers having announced that they had appointed a committee to look after the entertainment of the visiting photographers, the Executive Board decided to coöperate fully with their plans, and the entertainments promise to be entirely satisfactory.

General.

The various committees appointed by the President took up their work in detail, and laid careful foundations looking forward to a successful meeting.

Constitution.

The Executive Board desires to draw attention to the fact that the 1910 Convention of the Photographers' Association of America will be conducted under a revised Constitution and By-laws these revisions having been adopted at Rochester, 1909.

The following committees were appointed by the President for 1910: *Hotels and Accommodations*, Evanoff, Harris, and Dozer; *Decorations*, Harris, Larrimer, and Evanoff; *Buttons*, Dozer, Evanoff, and Larrimer; *Printing and Advertising*, Harris, Dozer, and Evanoff; *Press*, Harris, Larrimer, and Evanoff; *Information*, Dozer, Harris, and Evanoff; *Transportation*, Evanoff, Dozer, and Larrimer; *Association Annual*, Larrimer, Harris, and Proctor; *Local Entertainment*, Stein, Bangs, Bish, Reimer, Guttenstein, and Bandtel.

J. H. C. EVANOFF,
Secretary.

MILWAUKEE, WIS., January 12, 1910.

PHOTOGRAPHERS' ASSOCIATION OF NEW ENGLAND.

THE Photographers' Association of New England opens its campaign for 1910 with the annual midwinter banquet, to be held in Boston, on the evening of January 28. Professor Griffith, Director of the Museum of Fine Arts, Detroit, Mich., will deliver the address of the evening. President Oliver is also expected to outline the plans for the coming convention.

Mr. Oliver's administration is nothing if not a business one, and the photographers of New England are beginning to learn regularly and definitely of the 1910 convention, and its success or failure can be put where it belongs.

President Oliver and his officers realize that success means the active and intelligent coöperation of the rank and file of the Association, and unusual means to get them informed as to what is taking place are being made.

The first piece of mail matter to go out is a cleverly arranged folder, which is designed to draw an acknowledgment from the recipient. Some of the statements from the folder are reprinted below:

"There is no business having even a fraction of the magnitude or importance of photography that is not closely organized in an association and vastly benefited thereby."

"We believe that photography is not so vastly different from every other business, and that photographers are not so vastly unlike all other live human beings, that organization is futile."

"We believe that you have everything to gain from the Association, because we know that contact with others in your profession will prove valuable to you—because we know that you have knowledge to dispense in turn, which will be of advantage to others, and will help to make photography a profession of the importance to which it is entitled."

PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK.

Report of the Syracuse Section Meeting.

[WE commend the following report of the Midwinter Meeting of the Syracuse Section of the Professional Photographers' Society of New York to the members of those Associations who have not yet taken up the Sectional idea. It is an eloquent demonstration of the good that can be done by the "get together" idea, originated and carried out by the New York Society, as against the old style one-meeting-a-year Association idea.—ED. W. P. M.]

BROTHER PHOTOGRAPHERS: The midwinter meeting held in Syracuse, January 8, for the benefit of the up-State Sections, was in every way a success; the outcome of that meeting will be the formation of another up-State Section. The meeting demonstrated the usefulness of the State Society to the Sections and opened the way for a larger and broader field of work. I wish to thank all those who coöperated in making the meeting a success. Let us continue to seek light in the experience of others; let us aim to win, to improve, to foster good fellowship, but to develop good men while making good fellows.

Cordially yours,

HARRY A. BLISS,
President.

The success of the meeting may not be questioned, when it is understood that members of seven out of the nine Sections of the State were present.

After white satin badges had been pinned on the coats of all present, a demonstration in posing and lighting was given by Mr. A. F. Bradley, of New York, from ten o'clock until high noon, at Mr. Fairbank's studio—formerly known as the Dintruff Studio.

Mr. Bradley began by choosing a good-looking man out of the crowd, who was placed in a light of low tone, bringing out feeling in all parts of the face, and was then made to look his very best by the winning ways of Mr. Bradley.

There seemed to be a very nice point right there, though nothing was mentioned about it, this being one of the subtle points to be gained by a practical demonstration which could hardly be explained in any other way. If expressions counted for anything, his subjects seemed, at the time the exposures were being made, to believe themselves to be, for the nonce, possessors of a million or two of dollars, and at the same time felt and showed, also by expression, a desire to part with just an even half for charity. Does not his success, financially, portend an ability to keep his subjects in the same frame of mind until the business at the desk has been transacted?

The subjects were then chosen thick and fast, one, as he happened to be standing in some remarkable light, and then another for position.

After an interesting time in this way, the charming wife of one of the boys was introduced on the scene, and Chapter II was entered upon with the fresh, gladsome and poetic feeling of our own Fred Bradley. His tactful way of getting the action, so obvious in his full-length pictures, was thoroughly shown. This consisted in causing the subject to walk slowly to the point desired for proper lighting, and halting, at his request, keeping the position acquired in this most natural way, sometimes asking the subject to go through the performance a number of times, until the picture before the lens was all that could be wished for.

To have been "Johnny-on-the-spot" was worth more than can be measured in words.

Stop and think a minute, and you will see the significance of this.

Mr. Bradley showed, in a few minutes' time, in a practical and concentrated way, the inner workings of his mind.

If any man is in doubt about the value of belonging to a photographic society, let that man ask himself if any price could be set that would be adequate pay for giving freely of the essence of his own lifework!

At 2.45 P.M. the meeting was again opened and the new arrival from the Metropolitan Section, the father of the New York State Society—Pirie MacDonald—was presented by State President Bliss. Mr. MacDonald gave a short demonstration and then spoke very earnestly to the boys about photographs that are vital in likeness.

Mr. MacDonald said nothing concerning retouching, whether the wrinkles should be left in or not, but his plea went deeper, much deeper. His ideas impressed those present as leading *into*, rather than *over*, the picture, as for instance, *design* gives you the map of the picture, across the surface; *chiaroscuro* carries you into and through the canvas; so the photographic portrait should represent not only the map of the face in its true drawing, but should make one *feel* the very *being* of the person represented.

Mr. MacDonald says that if a man is having a picture made for his mother, no matter how much the picture may please the photographer, if it does not please the mother, he (the photographer) has missed his point. It may be that the thing that appeals to him in the portrait

is the very thing that the mother does not like.

After Mr. MacDonald's talk, the boys went over to Hendricks' Art Rooms, where about 200 photographs from all parts of the country were hung in a room designed for hanging paintings. The lighting arrangements were excellent, giving each picture its full worth.

Here Mr. MacDonald continued his talk, criticising the pictures from the standpoint of his self-adopted topic, namely, "The Bringing Out of the Vital Part of a Picture."

This talk was very consistent throughout. Mr. MacDonald said that he felt the importance of the subject more than ever after his visit to Dresden.

No one could do MacDonald justice in writing about him; he must be *heard* to be appreciated—but the phonograph might have picked up things like this:

"Now, *there* is a picture that I like. It is a picture of the *child*. It is *vital*. That picture will sell. One can *get into* the picture at once and *see* the child."

"This picture has good points, but it is rather difficult to find the face, the *important* point of the picture, and, having found it, it does not hold the attention—too many distracting lines."

"That old lady, now *there*, *THERE* is a picture! A fine *personality*—and so has the man who made it. I know him. I have known him, an old war horse. I knew he could do wonderful things, but I didn't know he could do that! There is just *the woman, simple;* the arrangement of the draperies tends only to bring out the character of the woman, and the beautiful little lights on her face, well—"

"Look at the mother love in that group! Background and arrangement help to tell the story. That mother loves the child, and the picture *says so*."

"This one, good in many ways; background meaningless, perhaps too interesting for the face."

"You can get composition and all those things from a dry book, but I want you to get at the *real thing* in the picture."

As before stated, MacDonald must be heard. At 6.30 seventy-three people, including photographers and their wives, were seated at a banquet at the Hub Restaurant. The sight was one to do the heart good. Mr. Harry Edmonds, chairman of the Syracuse Section, presided.

The Syracuse midwinter meeting was a success in every detail and as a whole.

Metropolitan Section, No. 1.

Pirie MacDonald, Chairman; Frederick W. Tyler, Secretary-Treasurer.

The Metropolitan Section held its annual dinner on January 4, at the "Gainsborough."

In attendance were Mr. and Mrs. Kalt, Mr. and Mrs. Byron, Mr. and Mrs. Schloss, Mr. Rochlitz, Mr. and Mrs. Core, Mr. and Miss Armbruster, Mr. Rockwood, Mr. Rockwood, Jr., Mr. and Mrs. Newman, Mr. and Mrs. Schonberg, Mr. and Mrs. Baker, Mr. and Mrs. Tyler, Col. and Mrs. Marceau, Mr. Puffer, Mr. and Mrs. Earle, Mr. Holston, Mr. and Mrs. Lifshey, Mr. Mix, Mr. and Miss Dampf, Mr. and Mrs. Randall and Miss Randall, Miss Rockwood, Mr. and Mrs. Buxbaum, Mr. and Mrs. Bradley, Mr. and Mrs. Gessford, and Mr. and Mrs. MacDonald.

Col. Theodore C. Marceau had charge of the dinner, which in every way was a success. Plates were set at small tables, and a pleasant feature of the evening was changing places at the tables every fifteen minutes. Another pleasant and unique feature was the omitting of set speeches. The entertainment was furnished by a band of negro singers.

B. J. Falk, though absent, due to the illness of his nephew, was presented,

through Mr. Core, who consented to act as his proxy, with a diploma as Membre d'honneur Chambre Syndicale Française de la Photographie et des ses Applications.

Hudson River Section, No. 4.

Edward Fritz, Chairman, Poughkeepsie; J. W. Cramer, Secretary-Treasurer, Matteawan.

The regular meeting of Hudson River Section was held on Friday afternoon, January 28, at the Fritz Studio, 254 Main Street, Poughkeepsie, N. Y.

A good attendance was on hand. Subject discussed: "What Means Shall We Adopt to Attract Customers to Our Studio?"

Things to Act Upon and Remember.

That "The work that will sell and how to sell it" will be demonstrated at the next State Convention.

That the Metropolitan Life Insurance Company has kindly given us the free use of their beautiful Convention Hall for our next State meeting, which will be held in New York, April 6, 7, and 8, 1910.

That $50 *in gold* is offered to a member of this Society for the best practical idea that can be applied to a photographer's use.

That every member of the Society is expected to make a picture for the print exhibit of the New York State Convention.

Several Reasons Why You Should Be a Member of the Professional Photographers' Society of New York.

Because the Society was organized to elevate the profession and promote fellowship among the craft.

Because the most successful men of our profession meet with the younger men and are ever ready to discuss matters for the common good.

Because the Society stands for what you can do for us and we for you.

Because a united profession can correct unjust discrimination.

Because membership in an organization, the prime object of which is the promotion of successful and honorable trade, is actually a duty on the part of those engaged in the trade.

HOUSE ORGANS.

BY THE EDITOR.

THE house organs we refer to are not the domesticated pipe organs or any other producer of sweet tones to be found in the homes of the musically inclined. We refer to the great and growing number of magazinelets issued monthly by the various manufacturers and dealers throughout the country.

They come in every shape and form; many of them are well edited and handsomely printed, and all contain more or less photographic information. They all, doubtless, answer the purpose for which they exist—to make known the goods of the particular firm they represent. We have no fault to find with them.

The organs of the manufacturers are to be commended for the constant help and training given to users of their products. We do not think that any other craft or profession is so well taken

care of in the matter of information as the photographic. Aristo schools, plate and paper demonstrators, are at the beck and call of every professional photographer. He can learn much at little or no cost to himself.

The house organ, however, exists for one purpose only—it must specialize on the products of the house it represents; it cannot cover photography in its various phases. Processes and inventions that do not come within the scope of its purpose are naturally omitted from its pages. The photogpher who confines himself to the house organ is narrowing himself down to a very small horizon.

The general photographic magazines are issued in the interests of photography in its broadest sense. Not confined to any particular side of it, they are ever on the alert to publish all that is new or interesting in every branch of photography without fear or favor. One of the most cherished privileges of a free and progressive people has been a free press. Read all the house organs that come to your desk, get all the good out of them you can, but do not let your reading stop there. Subscribe to some of the well-known general photographic magazines and keep posted on all that is being done in photography. They will cost you money, it is true; do not seek something for nothing. You cannot afford to give photographs away for nothing, why expect to get your photographic literature for nothing? Magazines are not as free as air, and even the house organs have to be paid for, though they may reach your desk free of charge.

We may be somewhat biassed in our own favor, but when for less than five dollars a year the photographer can get twelve copies of this magazine and fifty-two copies of, say, the *Bulletin of Photography*, he is certainly covering the entire photographic field for a very trifling outlay.

MAKING UP SOLUTIONS.

THE beginner in photography in the first instance most probably buys all the solutions he requires ready mixed, and has only to take measured quantities of one or two of them for the work in hand. There is a good deal to be said in favor of this practice in early work if the solutions are made up to reliable formulas. If a faulty negative or print is turned out the photographer knows that the chemicals at least are not to blame; and that cause being eliminated, there will be less trouble in locating the source of error.

The time soon comes, however, when the worker requires a large number of solutions; and from motives of economy or a desire to perfect himself in all the operations, decides to set to work at weighing, measuring, and compounding. A good deal of confusion, unfortunately, exists in our English weights and measures, but if it is remembered that the grain is the unit of weight and has the same value in all the systems, the confusion will be lessened.

Buying Chemicals.

Every chemical that the photographer buys is sold either by avoidupois weight or by imperial measure. There are 437½ grains in the avoirdupois ounce, and twenty ounces by weight of distilled water measure one pint. For the sake of convenience in making calculations, photographers commonly treat such an ounce as containing 440

grains, and the slight error introduced is of little or no importance.

Making up Formulas.

When chemicals so bought, however, have to be made up according to the published formulas, we are confronted with the first absurdity of our system. The grain, as we have pointed out, remains the same, but the ounce is no longer an ounce of 437½ grains, unless it is distinctly so stated or called an avoirdupois ounce, but is the apothecaries' ounce of 480 grains. This is subdivided in the following manner:

1 scruple	20 grains.
1 dram	60 grains.
1 ounce	480 grains.

The weights stated in photographic formulas, therefore, are as above, or at least should be as above, although the chemicals themselves are sold by a different method. The measures used for liquids are parallel to the weights, as follows:

1 dram	60 minims.
1 ounce	480 minims.
1 pint	20 ounces.

Graduated measures may be bought for the purpose of making up solutions. In these the pint is divided into twenty ounces, each ounce into eight drams, and in the smaller sizes the drams are divided into sixty minims.

An expensive chemical balance is not required; scales and weights quite good enough for the purpose may be bought for three or four dollars. If the scales are not fitted to an upright with a lever, as in the more expensive instruments, the same end may be attained by suspending them by a piece of string running through a screw eye in the edge of a shelf. A button is tied to the free end, and alternate pressure and release will raise and lower the scales and save time in getting exact balance.

The weights supplied with these scales are usually in apothecaries' weight, as is required. In some cases they are not marked with the weight in words, but figures are given, and a sign is used to denote scruples or drams. The same abbreviations are sometimes met with on graduated measures.

Chemicals should never be weighed in the bare pans; squares of clean paper should be kept and placed in the pans. The same pieces of paper should not be used twice. If liquids or wet salts have to be weighed, a small glass vessel—a little measure, a bottle, or a watch glass answers well—is placed in the pan, and counterbalanced by shot or weights.

In photographic compounding liquids are nearly always measured. Ten ounce, four ounce, two ounce, and two dram measures will be found convenient, and if only two are to be had, a four ounce and a two dram will be quite sufficient.

Distilled water is often recommended in making up solutions, but is hardly ever really necessary. For most photographic purposes the ordinary tap supply will do very well, but will cause some solutions, such as those of potassium oxalate and silver nitrate, to become turbid. In such cases if the solution is allowed to stand for an hour or two the turbid matter will settle, and the clear liquid may be decanted off, or it may be left in the bottle, where, generally speaking, it will be found to do no harm.

Developers should be made up with water that has been boiled for half an hour or so to expel the dissolved air, and has been allowed to cool without shaking. This is preferable to distilled water.

Dissolving Crystals.

Large crystals of any salt will take some time to dissolve. It is better to crush them first. The orthodox way of

doing this is to use a pestle and mortar, but they may be wrapped up loosely in clean paper and crushed with a hammer, or, if soft, with a ruler or piece of wood. If a mortar is to be got, one of about six inches in diameter is a convenient size. The unglazed variety is more pleasant to use than one that is highly glazed. A sheet of paper laid over the mortar, with a hole in it through which the stem of the pestle may pass, will prevent the crystals from flying out. For the same reason the crystals should not be pounded, but crushed with a grinding motion.

In working to a formula the solids should all be weighed out in separate pieces of paper and placed in order, and those that require to be powdered attended to. The water or other solvent is to be measured out, and the solids dissolved one by one in the order stated in the formula.

In some instances the mixing of two chemicals causes strong effervescence, as in the case of ammonium carbonate and citric acid used in making a developer for slides and gaslight papers. It is then better not to powder the crystals nor to dissolve them separately, but to place both solids in the water in a large vessel. In this way solution takes place slowly, and the effervescence is much less.

When crystals cannot conveniently be powdered, they will dissolve quickly and with little attention if placed in a muslin bag suspended in a wide-mouthed bottle, with the bottom of the bag just below the surface of the water. The heavy solution sinks to the bottom, and the crystals are always immersed in the weaker solution near the top.

When a very small quantity of a solid or of a powerful acid is required, a slight error may be of considerable importance. It is then advisable to weigh or measure out a larger quantity and to make a dilute solution of it. It is a simple matter to measure out the exact proportion required.

In the absence of specific instructions it may generally be assumed that when a certain quantity of water is specified the solution is finally to measure that bulk, and a safe way of working is to deduct from the quantity of water mentioned a proportion equal to the weight of the chemicals to be dissolved. When the solution is complete a little water will have to be added to make up the required bulk.

Stock Solutions.

Chemicals that are constantly required are conveniently kept in "concentrated stock solutions" of definite strength, in which condition, in most instances, they do not readily deteriorate. As a general rule, the more concentrated the solution the less speedily does it deteriorate.

A saturated solution is one in which as much solid matter has been dissolved as the water will take up. The strength of saturated solutions varies with the chemicals used and with the temperature, a fall in which will cause some of the dissolved matter to crystallize out. It is therefore not desirable to use saturated solutions when others will serve.

Parts.

There is another matter which puzzles a good many. The rule in *Photography* appears to be to give all formulas in the British weights and measures, but this excellent method is not pursued by everyone. Some formulas are given in "parts," and the exact nature of a "part," say, of glycerine as compared with a "part" of sodium carbonate is not quite so clear. Parts are invariably parts by weight, and in translating a formula of this sort into one in British weights and measures,

the simplest way of all is to substitute for parts grains, and in the case of liquids more or less watery in their character, such as solutions generally, etc., to express this in minims instead of parts. This rule is not invariably and strictly correct, but for all practical purposes is what is required.

The Metric System.

The metric system is a great favorite with many, although it is notable that comparatively few photographers have either weights or measures graduated according to it. A photographic formula given in the metric system may be translated into British system with all necessary accuracy by substituting fifteen grains for each gram and seventeen minims for each cubic centimeter. A liter may be taken with sufficient accuracy as being thirty-five fluid ounces.

In some cases formulas are set out elaborately with British and metric system in parallel columns, and photographers have been puzzled to know why the equivalent of any one measure is by no means adopted apparently in the other. This may be the case, and yet the final solutions may be of equal strength.

Just as in Britain when using the British weights and measures ten ounces is taken as a convenient quantity to prescribe, so when using the metric system it is very frequently the case that for simplicity of expression the total quantity taken is a thousand cubic centimeters (a liter), which is nearly four times as much. The point is a small one, but is shown to be necessary by such a case as the writer has actually known, in which the photographer, having weights on the British system and measures on the metric system, weighed out the dry chemicals prescribed for ten ounces of solution, dissolved them in water to make a thousand cubic centimeters, and wondered how it came about that the developer worked so slowly.

The following chemicals are among those which are frequently required, and may be kept in stcok solutions, the exact quantities to be made up of each depending upon the requirements of the worker. We may say that with the stock solutions of sodium sulphite, sodium carbonate, potassium bromide, ammonia, and potassium metabisulphite, together with the dry developer in powder, such as pyro, practically any maker's developing formula can be made up, while with the gold solution and sulphocyanide any desired strength of toning bath may be compounded.

As it is not advisable to have a number of little-used solutions in stock, the other constituents of toning baths are best kept in the solid state.

Sodium Sulphite.

Of this four ounces may be taken. This to be crushed, and boiled water which has been allowed to cool a little is poured on to make the bulk up to sixteen ounces. The solution should at once be divided between a number of small bottles, which must be filled quite up to the top and closely corked. This is a saturated solution at about 60° F., and will deposit crystals in cold weather. Its strength is 25 per cent.

Sodium Carbonate.

This may be crushed and dissolved in the same way as the sulphite. Four ounces dissolved in sixteen ounces of water is a convenient strength, and does not crystallize out at an ordinary temperature. This solution should be kept in a corked bottle, as it rapidly makes the stopper of a stoppered bottle stick.

Potassium Bromide.

This dissolves very quickly in cold water, and need not be crushed. If the ounce, as bought, is dissolved in sufficient water to make the bulk up to nine ounces one dram, it will be a 10 per cent. solution in the sense that each ten minims of solution will contain one grain of the bromide.

Ammonia.

If ammonia is used, the 0.88 solution, as bought, should be diluted at once with water to twice its bulk; and for working purposes two ounces of this should be made up to ten ounces with water. This also is a 10 per cent. solution, as each ten minims contain one minim of the original strong solution.

Potassium Metabisulphite.

This can be made up in precisely the same way as the potassium bromide solution mentioned above.

Pyro.

This is conveniently kept in a 10 per cent. solution—but many of the other developers cannot be made up in such a concentrated state—with a little metabisulphite as a preservative. If seventy grains of potassium metabisulphite are dissolved in nine ounces and one dram of water, and the liquid poured into a one ounce bottle of pyro, the solution will be approximately a 10 per cent. one.

Gold Chloride.

This is conveniently kept in a solution containing one grain in each dram of water. To make this, the hermetically sealed tube in which the gold chloride is bought is wrapped up in a piece of clean paper and broken by a smart blow. The contents of the paper, glass, and all are then added to ten drams of water. As soon as the gold salt has dissolved, which will not take a minute, the solution is poured away from the broken glass and diluted to make in all fifteen drams.

Ammonium Sulphocyanide.

This salt rapidly absorbs moisture from the air and becomes wet unless the bottle is kept tightly corked. It is therefore desirable to make a 10 per cent. solution of it as soon as it is bought.

Some few other stock solutions may be required, their nature and number depending upon the processes that the photographer works, but in a general way economy and efficiency will be served by keeping the number as few as possible.

Those who are accustomed to work with 10 per cent. solutions will find that many of the formulas given by the plate makers require no alterations, but others, while eminently workable, are so expressed as not to reveal their real composition at the first glance. To take the case of a very well-known formula, the Ilford pyro-soda one, in which metabisulphite is used as the preservative. The complete formula is as follows:

Water	5½ ounces.
Potassium metabisulphite .	70 grains.
Pyrogallic acid	1 ounce.

The working solution is made up by taking one or two ounces of the above stock solution and adding water to make twenty ounces. This is No. 1.

No. 2 solution is composed of—

Sodium carbonate . . .	2 ounces.
Sodium sulphite . . .	2 ounces.
Potassium bromide . . .	20 grains.
Water to make up to . .	20 ounces.

Equal parts are taken of No. 1 and No. 2.

We have it specifically stated that the

ounce in the Ilford formula is the avoirdupois ounce, so we are in no doubt on this point. The fact that we can use one or two ounces of the stock solution of pyro to twenty ounces of water may be a little disconcerting, but we will assume we are to use one ounce, since this is quite strong enough in all ordinary cases. We will assume also that the water is "water to" five and a half ounces, rather than five and half ounces of water. Then, clearly, if we dilute the whole of the stock solution of pyro to the extent named, one in twenty, we shall have five and a half times twenty ounces (that is, one hundred and ten ounces of solution) which will contain one ounce of pyro; so that each ounce of working solution will contain the one hundred and tenth part of an ounce of four hundred and forty grains of pyro. This is a strength of four grains to the ounce. But as this solution is diluted with equal parts of No. 2, the final developer contains two grains of pyro to the ounce.

The No. 2 solution is simpler, since on the face of it ten ounces of water contain one ounce each of sodium carbonate and sodium sulphite and ten grains of potassium bromide. One ounce, therefore, of this solution contains one-tenth of four hundred and forty grains, that is to say, forty-four grains each of sodium carbonate and sodium sulphite, and one grain of potassium bromide. As it also is diluted with its own bulk of the pyro solution, these figures have once more to be halved in order to give us the composition per ounce of the developers as applied to the plate, which then works out as follows:

Pyro	2 grains.
Sodium carbonate . . .	22 grains.
Sodium sulphite	22 grains.
Potassium bromide . . .	½ grain.

The potassium metabisulphite used in this formula may be taken as that required to preserve the pyro in solution, and its actual quantity is immaterial within wide limits, but any reader who wants to know how much there is present should have no difficulty after this explanation in finding out.

To make up such a developer with the stock solutions described above we take twenty minims of the 10 per cent. pyro solution, eighty-eight minims each of the sodium sulphite and the sodium carbonate solutions, and ten minims of the potassium bromide solution, to which sufficient water is to be added to make one ounce, and we at once get a developer which is to all intents and purposes the Ilford pyro-soda one. If some other formula has to be employed it can be analyzed as we have shown, and made up from our stock solutions in the same way. It may be that the formula does not contain potassium metabisulphite, but the small proportion of it in the 10 per cent. pyro solution may be neglected. At the worst it will only prolong development by a few seconds.—*Photography.*

LENS RAPIDITY IN PORTRAITURE.

THE experience of generations of professional and amateur workers in portraiture has demonstrated the fact that rapidity is often an essential for successful work in this branch. It is possible under favorable conditions to produce first-class results with a slow lens. But the conditions under which portraits are procured are generally such that advantage must be taken of every ray of light that can be included by the lens. Except for group work,

which will not be here referred to, all negatives will be produced indoors in a studio with a northern light, and most of that cut off by blinds for purposes of modelling. Some of the finest artistic effects are obtained by using light coming from one source only, perhaps from an area of not more than six square feet.

The modelling of the subject will largely depend on the handling of the light. If a sphere be placed in a room brilliantly lighted upon all sides, it will appear flat like a disk, but gradually cut off the light on one side and the effect of curvature will begin to appear, the modelling will improve, till it will be at its maximum when the strongest light comes from but one side, and there is just sufficient reflected light from the walls and ceiling to moderate the shadows. The peculiar effect of lighting generally spoken of as after Rembrandt (how that venerable gentleman must turn in his grave at the mere thought of some of the results—by his commercial pupils!) is produced by lighting the subject from one well-defined source, say an opening three feet square high up in the studio side light, and placing the camera nearly opposite to the source of light, with the sitter between the light and the lens. This is the class of portrait to severely test the rapidity of a lens; there will be high light running down the profile, touching the neck and some part of the hair, while the majority of the sitter will be in shadow—shadow that must not be too opaque, lest the result be a silhouette, but clear and transparent and full of detail.

Out of doors a portrait of small size can be taken with an exposure of one-eightieth of a second, at $f|8$ in a bright light. In a studio the light will be cut down, and, moreover, the sitter will be moderately near to the lens, so that the light affecting the photographic plate will perhaps be but $\frac{1}{500}$ the intensity of that outside. Now, the photographer is called upon to produce pictures of children and other restless creatures, so that short exposures must be given, for who can follow the working of the infantile mind and discover the psychic moment when stillness of face and limb are coincident, and will continue so for a second or more? It is not with children alone that short exposures are the order of the day. Adults also are subject to attacks of the fidgets, and the photographer who was obliged to wait for stillness of the subject, combined with a satisfactory expression, could accommodate but a small number of sitters in a day. If the photographer is accustomed in the ordinary way to use rapid plates, the only method of further reducing the exposure is by the use of a rapid lens. A lens working at $f|4$ is eight times as rapid as one working at $f|11$, and an exposure of one-eighth of a second is correct for the $f|4$ lens when one second would be necessary for the other.

There is a point, however, to be considered—if a lens working at an aperture of $f|4$ is always stopped down to $f|8$ to insure satisfactory results, it is no more rapid than a lens whose largest aperture is $f|8$; in fact, there are positive disadvantages pertaining to the rapid lens stopped down. Some photographers, when asked what aperture they use, will tell you that they don't know; neither do they know the focus of the lens; they only know what result they want, and they know when they have got it, but the method by which the result is arrived at does not interest them. It may be found that they are using an $f|4$ lens of the Petzval type stopped down to $f|8$ or $f|11$, for which they may have paid, if it be a lens by a first-class maker, some $125 or $150. It they had gone to the trouble of finding out what aperture

was the one most suitable for them to use, a lens of this aperture could have been purchased at half or quarter the price.

THE RECOVERY OF SILVER WASTES.

On several occasions in the past we have called attention to the misapprehensions which exist in the minds of many photographers as to the value of the "residues" recovered from fixing baths and other sources containing a greater or less amount of silver. The return made by the refiner is sometimes very disappointing to the sender, and we are frequently the recipients of complaints to this effect, and even of reflections upon the honesty of the refiners. It therefore seems necessary at times to remind those who are seeking to effect economy in these directions of the actual conditions, since it follows from these that a profitable return for the labor and trouble involved in the recovery of silver from baths and papers is chiefly dependent on the scale of the operations. Regard needs to be paid to the proportionately small amount of silver that is now to be recovered from photographic wastes as compared with what it was when the bygone processes of producing photographs were in vogue, namely, wet collodion for negatives, and albumin paper for prints. At that period a very large proportion of the silver used for the former was to be recovered from the developing solution. The muddy sediment that settled to the bottom of the trays, over which the negatives were developed, was all metallic silver, simply precipitated by the action of the developer. With the prints a good quantity of chloride was precipitated from the washing waters, prior to toning the prints, inasmuch as the paper was sensitized in strong silver baths, and a very substantial amount was also to be obtained from the fixing solutions, as the paper at that time was somewhat heavily salted—much more heavily than is the case now—hence it contained a larger quantity of chloride of silver (unacted upon by light) which was dissolved out in the hypo. At the period to which we are referring silver was much more than double the price it is now. For example, in the money article of the *Times* (London), in the year 1867—that was the time when the more heavily salted and sensitized papers were employed—we find the price of standard silver quoted at 60⅞d. ($1.25) per ounce; as recently as 1881 we see it was quoted at 51½d. ($1.05) per ounce; while at the time of writing it stands at 24¼d. (50 cents), or less than half what it was in the eighties.

Coming now to the conditions at present obtaining in photography with regard to the silver that is actually recoverable, let us take, by way of example, dry plates, bromide or gaslight papers, which, of course, contain no free silver. Therefore all the waste silver from them must be sought in the fixing solutions. P.O.P.s contain some free nitrate of silver, but it is very little, as compared with that in the old home-sensitized albumin papers. This also applies to the collodio-chloride and the ready sensitized albumin papers of commerce. In particular reference to dry-plates it will be remembered that some years ago quantitative tests were made of the silver contained in various brands of commercial dry plates, from which it was seen that in some the quantity per quarter-plate was 1 grain; in others, it was somewhat greater.

It may be interpolated here that the actual quantity of the silver is not a criterion of the quality of a plate; the state of aggregation, etc., of the silver

haloid is a more decisive factor; that is to say, a photographer will be foolish to give up one plate which answers his purpose for another simply in the hope of recovering a larger quantity of silver. Such a proceeding would be the very reverse of economical.

If we take an average, say 15 grains to the dozen, we shall see that a gross of quarter-plates, or a proportional number of other sizes, contain but 180 grains of silver in the first instance. Now, it is obvious that a certain proportion of this is reduced in the development to form the image. Assuming that half the silver is taken up in the formation of the image, it follows that there is only 90 grains to be recovered from the fixing baths, supposing that none whatever were lost—a practically impossible thing even with the most careful manipulation. Hence it will be seen, supposing there were no waste at all, one has to use six gross of quarter-plates to get an ounce of silver, which, when obtained, is worth only a farthing over a couple of shillings.

Bromide and gaslight papers, as a rule, contain less silver than do plates. Therefore there is proportionately less silver to be obtained from them in the fixing solutions—the only source from which it can be looked for. With regard to gelatine, P.O.P.s, collodio-chloride, and albumin papers, there is a certain amount of free nitrate of silver in them, though in a far less proportion than when the last-named paper is sensitized by the user. This free silver may be recovered from the washing waters by precipitating it as a chloride with common salt, or, better still, with hydrochloric acid—the common commercial acid is quite good enough for the purpose. The acid, it may be as well to say, is preferable to the salt, inasmuch as the precipitated chloride subsides more quickly and more compactly than when it is thrown down with salt. The rest of the silver in these papers is recoverable from the fixing solution in the same way as it is from bromide and other developable papers, namely, by precipitating it as a sulphide with sulphide of potassium—"liver of sulphur."

Though all the silver in *unfixed* prints is theoretically recoverable from the ashes, such prints will be a very inconsiderable item, as careful workers do not get many spoiled prints. Trimmings from fixed prints and spoiled prints that have been fixed are not worth saving, as the ash from them contains such an exceedingly small quantity of the metal, while it materially increases the bulk of the residue and adds to the refiner's charges.

In the above the subject has been dealt with from a purely business point of view, and photographers in a small way of business, as well as amateurs, will be able to form an opinion for themselves as to what their scale of working must be for the recovery of silver to be remunerative.

Supposing, we will say, that 15 ounces of silver are recovered as the result of a year's savings, and it turns out to be of the purity of standard silver, it will realize, at the present price of silver, a trifle over 30s. ($7.50). Out of that has to be deducted the refiner's charges for reducing, the carriage to him, the cost of the liver of sulphur; added to this is the value of the time and trouble expended in collecting the wastes.

In establishments where a large business is done there is little question that, with suitable appliances and method, it does pay to save all residues. Many, we know, cling to a somewhat optimistic view of the value of residues, and therefore in a later article we will describe a test which can be carried out at home by which a reasonably correct idea of the monetary value of residues may be obtained.—*British Journal of Photography.*

Doris

By Cleo S. Bourgeois

From American Annual of Photography, 1910

Alvin Langdon Coburn

By Rudolph Dührkoop

From American Annual of Photography, 1910

Dr. John Green

By J. Strauss

From American Annual of Photography, 1910

The Roar of the Ocean

By Mrs. W. W. Pearce

From American Annual of Photography, 1910

Portrait

By Sherwell Ellis

From American Annual of Photography, 1910

1. Portrait of Miss S.
2. Portrait
3. Portrait of Miss L.
4. Portrait of Mrs. M.

Illustrating Sidney Allan's Article

5. Sisters
6. Portrait of Miss R. V.
7. Portrait
8. Study Head

Illustrating Sidney Allan's Article

9. Daughters of the Duke of Koburg Gotha

10. Princess Alice of Hessen 11. Portrait of a Child

Illustrating Sidney Allan's Article

MASTERS IN PORTRAITURE—FRIEDRICH AUGUST VON KAULBACH.

BY SIDNEY ALLAN.

FRIEDRICH AUGUST VON KAULBACH is one of the best known portrait painters of Germany. He is the grand-nephew of the famous historical painter, Wilhelm von Kaulbach, and a son of Friedrich August, Sr., also a painter of renown. Belonging to a family of artists, he began painting as a mere boy, and quickly established a reputation for himself.

It was his versatility which first attracted attention to him. He is an excellent caricaturist, and tried himself successfully in genre painting, costume pictures, historical and religious subjects, also in landscapes, and even in designs for posters and advertisements. The design for the "Schützenlise," a young Bavarian girl in short dresses skipping along with half a dozen *steins* in each hand, made him famous all over the world. Artists for a long time did not take him quite seriously; he seemed to be too clever to be great, and a trifle "commercial" in the bargain; but gradually the opinionism changed; this was largely due to his portraits. In his portraits we notice the same versatility, the same ease of performance, as in all his other work, but it is particularly noteworthy in his representations of young girls and children.

Figs. 1, 2, and 3 are excellent delineations of young women. Fig. 4 impresses us as being a trifle cheap. There is too much detail, and the form of the lower body is too accentuated. There is a flavor of the vaudeville about the costume, and we can hardly believe the painter that he portrayed in Mrs. M. a sedate German *hausfrau* of undoubted respectability, although her face looks innocent enough. The elaborate mosaic chair, the abundance of lines in the skirt, the fan and opera cloak, the frills and ruches, and the heavy ornamental curtain in the background rather harm the composition than benefit it. The detail in itself is well managed, but there is no bigness or breadth about it. The first thing that attracts our attention is the pose; after that our eyes glide from one detail to another, and only finally we discover the face.

Kaulbach seems to be particularly fond of detail. He seldom manages to be as simple as in Fig. 3, 6, or 8. He likes to depict all the fineries of a lady's gown, and at times does it with considerable skill, as in Figs. 1 and 6. There is little fault to be found with Fig. 1. The pose is a natural one, it fills the space exceedingly well, and there is enough contrast of black and white to lend interest to the light hat and gown. The boa really does the trick. Without it the effect of the light figure would be too much like a silhouette.

Fig. 2 is less harmonious. Too much stress has been laid upon the feathers and laces, and as the whole figure is light in key, the background should have been less heavy. It seems that not only photographers but also painters favor the Gainsborough background.

The "Portrait of Miss L." (Fig. 3) is a charming composition, only the light to the left, around the bow and the rim of the hat, looks as if it was faked in. I wonder if Kaulbach learned that from Pierce or J. C. Strauss!

Fig. 7 strikes us as being heavy and stiff. Of course, we have to take into consideration that the sitter is a lady of Teutonic proportions in a rather cumbersome gown. The management of the train in the right corner is a skilful piece of work. Also, the column is well placed. It needed something on the left

side to balance the bulky and black figure. And a column (which suggests massiveness) was in this instance preferable to any curtain or landscape vista.

Kaulbach nearly always reminds us of somebody else. I believe he could compose and paint a picture in any fashionable style. Fig. 6, with its precise lines, reminds us of the modern English school. There is plenty of detail, but it has been handled with more refinement than in either Fig. 2 or 4. The conception of a dark figure against a middle tint background is fine. The face, bust, and the strong accents in the lace fichu lend an interesting color note to the composition. The rectangular shape of the dark stripes in the background, suggesting a tree trunk in the open country, give to the picture a rare atmospheric quality.

There is not much to say about Fig. 8. I like it for its simplicity. It is a composition in three tones, and in a way carries out the same idea as Fig. 6.

The portrait "Sisters" (Fig. 5) is one of Kaulbach's masterpieces. Look how skilfully the curves of the four legs are managed! How graceful and natural the pose of both children is, and how the white dress is used as the principal color note! The shape of the dress, the two faces, and the arm to the right form a sort of ellipse, a line or shape arrangement that holds the group together. The settee is as cumbersome as any "studio" furniture, but somehow its straight lines do not look obtrusive. I believe that the placing of the branch where the leg of the settee touches the floor has much to do with this effect. It is a mere detail, but it took away all angular harshness that otherwise would have been unavoidable. One picture like this is enough to make a painter famous; at least, this was the case with Kaulbach. After exhibiting this portrait in the early eighties (when I had the pleasure to meet the painter and see this particular picture) his reputation as a painter of children was firmly established, and if such a thing happens in Germany, it generally means for a lifetime.

The color effects, so far as I remember, were particularly striking, but we cannot judge that from a reproduction. Quite remarkable, however, is the differentiation of texture in the two dresses, the hair, the stockings and shoes. We can almost guess the material.

Charming also is the Reynolds version of the little child (Fig. 11). I generally do not approve of such imitations, but there is still a decided difference between a direct imitation (as you so often see in photographic portraiture) and an original composition after a certain master. The background in this picture is a trifle monotonous. It should be broken, in the true Reynolds fashion, somewhere in the left corner.

In Fig. 10 we have a novel use of the oval shape. The lady is represented as sitting on the other side of the oval, looking through the opening at the spectator. Her sleeve and drapery break the monotony of the curve.

"The Daughters of the Duke of Koburg-Gotha" is a most ambitious effort. It is good in part, as, for instance, the standing figure to the right, but is very bad as a group. There is no unity, no concentration. Neither the light nor line arrangement is remarkable. Everything is restless, a-jumble. There is enough material for half a dozen pictures instead of one. And yet there is a certain grace and charm in the figures that save the picture from being commonplace. If it had been treated more as a picture, the painter no doubt would have made a much finer composition out of it. But he had to get four likenesses. That was an intricate problem, and it proved a trifle too much for him.

The next paper will be devoted to the works of J. W. Alexander.

PHOTOGRAPHING MACHINERY AT WORKS.

BY "MECHANIC."

Of all the troublesome jobs which have to be undertaken by the photographer, there are none that call for more resource and technical skill than the photographing of a piece of complicated machinery. Nine times out of ten the work has to be done under circumstances that would make even a simple bit of work difficult. As often as not the point of view required is one facing the largest light, and neighboring objects throw cross shadows that still further confuse the crowded details. Working under these adverse conditions, the photographer is expected to produce a print in which the important parts that call for attention stand out clearly, free from shadows of other objects, and relieved against a white or light-gray background.

A good deal of judgment and quiet assurance are required in making the preliminary arrangements. Generally speaking, the people for whom the work is to be done know nothing of the photographer's requirements, and may be inclined to look upon his requests as being unnecessary. If he knows exactly what he wants, and can discriminate between what is capable of being done and what is practically impossible, and can, if required, give convincing reasons for what he wants done, his clients are likely to prove amenable to reason.

In the first place, it is imperative that he should have sufficient room in which to work. He is, presumably, provided with at least a couple of lenses embracing different angles on the plate to be used. An exact knowledge of what they will include at different distances, and a foot rule, will assist him in coming to a rapid decision as to what alterations are absolutely necessary, and how they may best be made. Fussiness and contradictory orders will ruin his reputation at once. As an instance of this sort of thing in my own experience, an elaborately built up platform was moved at the request of the photographer several yards three times, and was finally placed within a foot of its original position.

When the machine is too heavy for easy removal, and the lighting is altogether unsuitable, temporary blinds and the use of artificial light to supplement the exposure may have to be resorted to, while to overcome cross shadows reflectors may have to be employed. White tissue paper lightly attached to the window will soften an overstrong direct light, and at the same time will diffuse that which passes, with the result that gleaming high lights from the polished metal will be less obtrusive, and the deep shadows will be better lit. In some instances the windows may have to be blocked up with brown paper and artificial light used. Sheets of white cardboard may be placed in such positions and at such angles as to reflect the light into the deeper shadows.

When artificial light has to be used to supplement the exposures, magnesium ribbon will be found the more generally useful. There are many flash lamps on the market, but in my own case I nearly always get all I want with pieces of magnesium ribbon held in a pair of pliers and kept moving. The main light and shade are best given by daylight, the ribbon being used to give a little illumination in the darkest corners, just as reflectors might be. It is

better in all classes of work, and most particularly with regard to machinery, to diffuse the light through a screen of tissue paper than to allow it to fall direct upon the bright metal. The magnesium candles now sold may also be found useful. In using these the tissue paper screen should also be employed.

As the blocking out from the negative of other objects than those required is a difficult and tedious process, it is much better to go to some trouble to rig up a suitable background. The white sheets sometimes offered for the purpose in engineering establishments are worse than useless. They are, as a rule, badly creased, dirty, and fall into unsightly folds. Stout white paper, such as is made in large sizes for draughtsmen's use, is distinctly preferable, and, if neatly joined with a mountant that is nearly dry, a background of practically any size may be made up that will require the minimum of retouching.

It is, of course, quite useless to make the exposure while other machinery is at work. However solidly built the workshop may be, there is always a certain amount of vibration that will cause blurred outlines in the negative. When a large number of workmen are employed, it is hopeless to expect that the operations will be stopped for an hour or so to enable the photographer to make his exposure. The breakfast time or the dinner hour should be selected, and all arrangements should be completed in advance, so that the fullest advantage may be taken of these periods of cessation of work.

The vibration of the premises is not the only cause which leads to blurring. Currents of heated air are quite as troublesome. In one case that came under my notice an engine that had to be photographed was running until within a few minutes of the time when the exposure was made. The cylinder was still hot, with the result that the hot air ascending from it caused all the adjacent parts to be badly blurred. It is only necessary to stand at the side of a fireplace, or gas stove, and notice how the current of ascending hot air gives to all objects beyond the appearance of motion to realize this.

The color of the machinery and the nature of the paint used are also points to be taken into consideration. It is common to give machinery a first coat of lead-colored paint, and as this has a rather dull surface it is much better for the photographer's purpose than the glossy, non-actinic blacks, greens, and reds which are used for the last coat, and better than the oil-stained raw material. If this be pointed out to the person in charge, arrangements can generally be made to have the photograph made at that stage.

It will usually be found that all the bright parts are smeared with oil. In itself this is rather an advantage than otherwise, since it helps to reduce the excessive contrasts, but the irregular coating will certainly show in the finished print and be an eyesore. A piece of clean cotton waste should be used to remove the irregular smears. Shafting and cylinders should be wiped in the direction of their length, care being taken not to introduce wave-like markings. In wiping globular and irregular-shaped turned work, the waste may be passed round the work, when by pulling first one end and then the other of the waste a regular appearance will be given to the surface.

When all has been done to reduce contrasts by diffusing the light, and to avoid halation by backing the plates and adopting rapid development, there are almost certain to be some defects to be removed from the negative. Bright patches of light will be reflected from angles and globular parts of the polished work. These must be rubbed down on the negative, and for that purpose I

find the mechanical reducer introduced by Mr. Baskett is much better than wood alcohol. The reducer is made by mixing together a twopenny box of Globe polish, two ounces of terebene, and two ounces of olive oil. The mixture is strained through a piece of fine muslin and applied with the sharpened end of a cork. It will readily remove small, obtrusive high lights. Larger parts are dealt with by using the flat end of a cork.

Joints in the paper background may, of course, be removed in the ordinary way, and if reflectors and magnesium powder have been used to equalize the lighting, the negative should require but very little working up.

ALVIN LANGDON COBURN.

[UNDER the caption of "Photographers I Have Met," "Touchstone" draws an amusing sketch of Alvin Langdon Coburn in the current number of *The Amateur Photographer and Photographic News*, reprinted below. Mr. Coburn was for a time a believer in the grotesque in wearing apparel as a method of advertising, the sort of thing that is sometimes seen at our Western conventions.—ED. W. P. M.]

If there had not been a Coburn, the Americans would have been obliged to invent one in order to boss the British in the Secessionist interest. However, one fateful day the right man walked into the "Little Gallery" with an astounding pr'nt representing some chunks of wood stuck in the mud. The boys were instantly fascinated by this too utterly precious impression of "Portsmouth, U. S. A.;" but directly they saw the hat they blanched and blenched. "Fear not," said the dictator ("A. S."), "although we will cherish his prints, the male picture-hat man shall be banished to London."

A. L. C. was born a technician and an artist, so that his early works showed a fine disdain for both art and technique. Later on, like a wise man, he modified his estimate of his natural abilities, went to some elementary art classes in London, and bought a shilling textbook.

These measures worked wonders, and resulted in that epochal series of not-at-home portraits known as "The Bloomsbury Bounders," and in that not less notable series, "Photo Fragments of Marked Men," in which the soul of each great personage is indicated by a portion of his face, such as the chin, tip-tilted nose, or eyelash.

The basis of A. L. C.'s splendid success is not the enlargement of underexposed snapshots, but his secret printing process. Coburn's pictorial personality is so intense that he is able to project it wherever he listeth. I have known him, while manipulating roll-film snapshots in a daylight tank, exert such powerful telepathic influence that when the film was fished out every section bore in the corner a graphic image of Coburn's—mind!

When first I knew Coburn he was decorative, from the crown of his hat to the soles of his patent-leather shoes. "*Sacré!*" we cried. "*C'est épatant!*" Yes, we laughed at Coburn, but we really had a sneaking admiration for him all the same; for an eccentricity which would be absurd in a *poseur* becomes delightful when it is backed by that genius which appears to be peculiar to the hustling American. The cleverest of us realized that Coburn was cram full of genius; the rest of us pretended that we did.

In his youthful days Alvin Langdon Coburn was often as eccentric in his art as he was in his dress. But, alas! those happy days have passed with the passing of the Paris hat and flowing tie; he is still original, but he has almost forgotten how to be eccentric.

And yet Coburn's eccentricities were never serious posing; his clothes might have partaken of the nature of an advertisement, and as a friend of Bernard Shaw he must have realized the value of advertisement; but his eccentricities in art were fun—genuine fun. All the time his critics were fulminating, Alvin was laughing up his sleeve; and while his critics were calling down the vengeance of Heaven on his latest impudence in "light-pictures," Alvin was explaining to his intimate friends that he had "considered the negative rather amusing."

As the years fly by and are lost to him, Coburn is becoming less rococo in his imagination, and consequently less exuberant in his originality; but his enthusiasm is unabated, and he is learning to realize his limitations. One of these days he will become quite normal—but then, perhaps, he will have given up photography.

CONTROLLING BROMIDE PRINTS.

BY P. H. HENDLEY, L.S.A.

Up to the date of the introduction of Sterry's process the methods of controlling gradation in bromide prints were not very satisfactory, nor were they easy of manipulation. With ordinary care and cleanliness it is within the power of the average photographer to produce a perfect print by this method. The great feature of this process is the fine gradation to be obtained, and the softening of contrasts. Nor is this all. Where we have to reduce to monochrome a wide range of colors, as in complex flower studies, we can obtain pictures with a much truer gradation than it is possible by straight exposure and development.

The process is extremely simple. All we have to do is to soak the exposed but undeveloped bromide paper first in water for two or three minutes; then in a bath of bichromate of potash for a few minutes; rinse in two changes of water to wash out excess of the reagent, and finally develop in the ordinary way.

The first thing to be done is to make up a stock solution of bichromate of potash. It does not matter if a few crystals of the salt remain undissolved at the bottom of the bottle, as this only shows that the solution is saturated. From this we can make up baths of varying strength.

Next (if using an unfamiliar bromide paper) we take our negative and make a series of exposures to determine the time necessary to obtain perfect detail in the high lights. No notice need be taken of the shadows being overprinted, as the bichromate bath will keep back the development of these when we make our final prints. The necessary exposure having been discovered, we make a trial exposure, and cut it into strips, taking in portions of the highest light and the deepest shadow. Next we take our stock solution, and from it measure out carefully, say, half a drachm, and make up to ten ounces with cold water. Place the exposed strip in a bath of cold water for two or three minutes—

this I find is rather an important step in the process, as unless this is done the bichromate bath seems to act unevenly on the emulsion, and may lead to unsightly stains appearing on the finished print—and then transfer to the bichromate bath. Leave it in this for four or five minutes, then rinse twice in clean water and develop as usual. Personally I use amidol for preference, as toning with sulphide or hypo-alum works best after this. Development is retarded, but it is advisable to go on until the detail comes up in the high light. Now rinse quickly and fix in acid hypo. The acid is important here because it will remove any yellow stain left by the bichromate bath. When fixed, remove the print to a well-lighted room, and examine it side by side with a straight print from the same negative. It is probable that the result will be a considerable improvement on the straight print. However, if it is not entirely satisfactory, baths of greater strength can be made up from the stock solution, and further trials made with the exposed strips reposing in the drawer.

Having determined our exposure, and decided on the strength of our bichromate bath, we make a final exposure and develop and fix. Then compare this result with the straight print. It is important that the final washing should be thorough. In this way we can obtain extraordinary differences in our prints.

The negative which I used in making my trials of this process was, I thought, hopelessly spoilt by stains produced by my having attempted local reduction. But my astonishment was great when I discovered that all signs of the stain were nearly obliterated by the adoption of this process.

The conclusions that are to be drawn from my results are:

1. By this process we have a means by which great softening in contrast can be obtained, the scale of tone gradation being greatly improved.

2. We can obtain greater detail in the shadows than we could without it.

3. In subjects in which we have to reduce to monochrome a wide range of colors we can obtain a correct rendering, although we may have, on our negative, overexposed for the whites and blues, and more correctly exposed for the reds, yellows, and greens.

4. In landscape subjects, where we have on the same negative a good sky with a fine cloud detail, we can keep back the development of the landscape until we have brought out the sky detail.

5. From a negative which is badly stained we can get a good clean print.

In conclusion, let me add a word of caution: When working with this process, or indeed any other in which bichromate salts are used, it is advisable that the operator should wear rubber finger stalls. If the solution gets into any small cuts or abrasions in the skin, ulcers are apt to form, which are very slow in healing.

A Non-cockling Mountant.—Take

Gelatine (Nelson's No. 1)	2 ounces.
Glycerine	4 drams.
Wood alcohol	3 ounces.
Water	7 ounces.

Soak the gelatine in the water until quite soft, and then dissolve by gentle heat. Mix the glycerine in the wood alcohol, and add it gradually to the solution of gelatine, stirring thoroughly after each addition in order to prevent coagulation. As soon as all the alcohol is added, and the solution is quite clear, it may be drawn off into suitable jars. The jars will have to be plaeed in hot water to melt the mountant before use.

URANIUM TONING.

At one time the only toning process for bromide prints, this method is now almost discarded. The drawbacks to it are rather numerous. The prints must be absolutely free from hypo, otherwise fearful stains are the result; the prints are intensified as well as toned (the greater the toning action, the more the intensification); and, lastly, the toned print must be both briefly and cautiously washed, to avoid general or patchy weakening of the tone by ordinary tap-water. Add to these disabilities the fact that the majority of uranium-toned prints have not proved permanent, and it is not to be wondered at that the method has fallen out of use. Its inclusion in the present monograph is intended as a dêterrent against its use, despite the quite pleasing and characteristic chocolate-color tones which it gives. Still, to give uranium its due, we must record the experience of such careful workers as Mr. Welborne Piper, that the results have proved perfectly permanent in the sense that the tone has improved rather than otherwise with time. Therefore, while space cannot be devoted to the full details of the method, the following points essential to success, and quite disregarded in most of the text-book articles on the process, may be mentioned: Metol or amidol is better than ferrous oxalate as a developer. A light print is needed. The fixing must be thorough, say fifteen minutes in hypo, three ounces to the pint. Hypo must be thoroughly removed by an hour's washing in running water, followed by fifteen minutes in alum, 2 ounces; citric acid, ¼ ounce; water, 20 ounces; and a further washing for three-quarters of an hour in water. The working toning solutions should be very weak, much weaker than advised in the usual formulæ. Convenient stock solutions are: *A*. Uranium acetate, ¼ ounce; water, 25 ounces. *B*. Potassium ferricyanide, ¼ ounce; water, 25 ounces. The ferricyanide solutions should be made up at the time of use. These 1 per cent. solutions are diluted to give 1 part of each chemical in about 3000 parts of water; that is, 1 ounce each of *A* and *B* should be diluted with water to form 30 ounces of toner, adding also about 15 to 20 minims of glacial acetic acid per ounce of toning solution. After toning, the print is placed direct in a 1 per cent. solution of ammonium sulphocyanide for a minute or so. This clears the whites of any yellow stain; a very short wash in *still* water (several changes) is sufficient. The print should not be washed in running water, as any local current of water on them is apt to produce a mark due to a greater action of the water. Also any drops of water adhering to the print should be blotted off before putting out to dry. With these precautions taken, it is found that the only change which takes place in a uranium-toned print is the appearance of a silvery metallic sheen on the shadows. Rubbing with pure hard vulcanized rubber will remove it, while varnishing the print with a celluloid varnish, or the convenient "Agfa" zapon lac, will prevent its appearance. Worked on these lines, the uranium process may be called fairly reliable. The question is whether the game is worth the candle.

Depth of focus, or definition in different planes, can only be secured by stopping down, no matter whether the lens is an old R.R. or the latest anastigmat.

Straight parallel lines photographed with a single lens, with the stop in front of it, are bowed outward at the ends. If the stop is behind, the lines are bowed inward.

NEGATIVE VARNISHES AND A SUBSTITUTE.

ALTHOUGH no practical photographer will deny the efficacy of varnish for preserving much-used negatives, writes L. Tennant Woods, in *Photo Notes*, comparatively few photographers use it. The probability is that there are many like myself who cannot successfully apply modern commercial varnishes, particularly those of the shellac and spirit variety made for use with heated negatives. It is all very well for armchair experts to tell us how to apply it, but I notice that most of them always make the bewhiskered joke about more of the varnish going down the coat sleeve or the arm than upon the film of the negative.

Varnishing with me is a necessity, as I frequently take hundreds of silver prints from one negative in all kinds of weather, and I have found that, however careful one may be with an unvarnished or otherwise unprepared negative, it is impossible to proceed very far with the printing without silver stains appearing on the negative.

I have always been in favor of those methods which enable one to specially treat a negative while it is wet, so that it will dry in a state quite impervious to silver stains, scratches, or other kinds of damage, and as some such methods do not appear to be generally known, not being found in ordinary text or reference books, the formulæ and mode of using may be of service to those who, like myself, look upon the commercial varnishes as a kind of anathema.

Shellac is unquestionably one of the best bases for varnish, and probably the most widely used, but I prefer it in a watery solution in which the drained negative may be soaked. A formula is:

Borax	1 ounce.
Orange shellac	5 ounces.
Water	1 pint.

Dissolve the borax in the water by boiling, add the shellac broken up in small pieces and keep hot until all is dissolved. Then filter, or allow to stand for some days and pour off the clear part from any sediment. The fresher the shellac, and the longer it is allowed to stand after mixing, the better and clearer will be the varnish. If the color is objected to, the same amount of bleached lac may be used in place of the shellac.

The negative, being drained after washing, is placed in the mixture and rocked just as if the solution were a developing or fixing bath. After about fifteen minutes soaking, the negative is taken out, the glass side is wiped dry, and the plate is then set aside to drain and dry in the rack. If the negative has been allowed to dry before varnishing, the water varnish may be painted on with a soft brush. None of the troubles associated with hot varnishing will be met with, and a good hard and lasting coating will be the result.

Lately I have been in favor of specially treating the film with tannic acid and alum, in order to make the film tough and parchment like, the following bath being used for the purpose:

Alum	1 ounce.
Tannic acid	½ dram.
Water	8 ounces.

The negative is washed well after fixing, and immersed for four minutes—no longer—in the above mixture, the dish being rocked all the time so as to insure uniformity in action. The negative appears to darken a little and become more brilliant, and the film glass-like to the touch. It is then washed for a quarter of an hour and dried as usual. If the negative is allowed to remain longer in the bath the

film may buckle at the edges and perhaps leave the glass support. The solution may be used over and over again until exhausted, and the film is made so hard that water may be poured over the surface and wiped off again without injury.

PYRO.

DEVELOPERS come and developers go, but pyro—"good old pyro," as some enthusiasts call it—endures; the mainstay of the great majority of photographers. With all the advantages that are claimed for the newer products, the sale of pyro, it is said, is larger today than ever. It may not be time wasted if we look into the causes for this firm hold upon the affections of the photographic public.

Pyrogallic acid is not an acid, but the name clings to it. The term owes its origin to the fact that the substance was first made by heating gallic acid and collecting the vapors which were given off, which vapors on condensation proved to be what is more correctly called pyrogallol. However, as photographers generally call it pyro, they are exposed to no animadversion on the ground of inaccuracy. Pyro is on the market in two forms—as a light feathery powder, so bulky that it takes a half-pint bottle to hold an ounce, and as small, compact crystals, which only take up about one-tenth as much room. Except in this matter of bulk, there is nothing to choose between the two products; in fact, the writer even prefers the bulkier snowy form, because the bottles in which it is sold are more useful.

Pyro is poisonous, though not excessively so; five grains are said to be sufficient to kill a dog (St. Bernard or King Charles not specified). In dry form it will keep as long as can possibly be wished, certainly many years, without any alteration, even in a loosely corked bottle.

Unfortunately for the photographer, he wants it in liquid form, for convenience of measuring; and, although there are great differences between the keeping properties of different solutions of pyro, there is not one of them that can be said to keep well. Sooner or later it will get dark and muddy, and lose much of its developing powers. The reason for its bad keeping quality is that it gradually absorbs oxygen from the atmosphere, and the oxidized pyro that results is a blackish substance, insoluble in water, and quite useless as a developer. The absorption of oxygen goes on slowly even when there is acid present in the solution; but is most rapid when the liquid is alkaline. This can be seen by adding a few drops of hydrochloric acid to some water in one glass, and a few drops of ammonia to some in another, and then adding to each a little pyro. The solution made alkaline with ammonia at once discolors. Still, it is this avidity for oxgyen that makes it useful as a developer; so that, however we may use acid to preserve the stock solution, we must make the developer itself alkaline when we apply it to the plate.

The best acid to use as a preservative of pyro solution is sulphurous acid, and this not only prevents the pyro from oxidizing, but to some extent reduces the discoloration produced by the oxidization. We may add the sulphurous acid itself to the solution, as was done in the case of the once popular "Beach's Developer," or we may add it in the form of sodium sulphite, or potassium metabisulphite. The latter is of itself a strongly acid salt; the former needs

the addition of a little free acid—sulphuric or citric is generally used—to liberate the sulphurous acid which is to preserve the pyro. In some of the older formulæ no sulphite was used, but the pyro just dissolved in water acidulated with hydrochloric, citric, or other acid. These solutions are serviceable enough today, but they do not keep very well, and the sulphite plan is decidedly to be preferred.

In dissolving pyro, considerable difference is made in the keeping quality of the solution according to the water that is used. All water, in the ordinary way, contains a great deal of air dissolved in it, and if we use this water to dissolve the pyro, we are providing it with a ready way of obtaining at once a supply of oxgyen for its oxidation. We can get rid of most of the air by boiling the water; and, if we allow it to boil briskly for a few minutes and then to get cold without any agitation, there will be decidedly less air in the water than before; and pyro solution made with it will keep its color and its developing power longer. Any subsequent shaking up tends to dissolve air again. This explains how it is that pyro solution must not be filtered. The filtration exposes the liquid to the air so much that much air is dissolved and the solution rapidly discolors.

The formulæ for stock solutions of pyro are almost infinite in number, and there is little to choose between many of them. Let us see for a moment what are the qualities such a solution should possess. First, of course, it must keep in good order for a reasonable time; second, it must be of known strength, so that when we take any definite bulk of it we know how much of the pyro itself we are adding to the solution; finally, it must not be unduly acid, or the acid will neutralize some of the alkali which we add to it in making up the developer, and we shall not know the alkalinity of the developer. A reader may say that he does not know the alkalinity of his developer, and does not care. True enough in one sense, but in another it is not so. He knows—or at least the plate maker tells him—that the plates will stand such and such a developer. If he alters the quantity of acid in the pyro solution, although the acid itself may have no direct effect on the plate, it will have an indirect one by altering the quantity of alkali in the developer by neutralizing more or less of it. It is best, therefore, to keep the quantity of acid as low as is consistent with good keeping qualities.

The formula I myself employ is a very simple one: 120 grains of potassium metabisulphite are crushed and dissolved without agitation in about 6 ounces of cold boiled water. I generally put it in over night, and find it dissolved in the morning. The liquid is then poured into an ounce bottle of pyro, and the pyro immediately dissolves. It is then poured back into the measure, and more of the boiled water is added until the total bulk is 9 ounces 1 dram. This forms a 10 per cent. solution of pyro, which may be bottled off and is ready for use. It will keep in good working order for several months, but after the first month or so there will be a gradual decrease in its power.

Such a pyro solution may be used with any alkali which is preferred, but in my own case I never employ any but soda. Some, however, prefer to use pyro-ammonia, and as I used to do so myself at one time, I will give the formulæ. The other solutions required are 10 per cent. potassium bromide, made by dissolving 1 ounce of the substance in 4 or 5 ounces of water and diluting it to make 9 ounces 1 dram, as before; and 10 per cent. ammonia, made by taking 1 fluidounce of the strongest liquor ammonia and diluting it to make 10 ounces. Unless stained

negatives are preferred, a 5 per cent. solution of sulphite, which should be freshly made up, will also be wanted. The strength of the developer must be adjusted to suit the plates. The most generally useful I have found to be made by taking for each ounce of solution:

Ten per cent. pyro	20 minims.
Ten per cent. bromide . . .	10 minims.
Ten per cent. ammonia . .	30 minims.

This was made up to 1 ounce by using the 5 per cent. sodium sulphite solution in place of water. By substituting plain water for it, a greenish yellow negative results.

Pyropotash is hardly ever heard of now, and a formula cannot be of any use, particularly as there is no perceptible difference whatever between its behavior and that of pyro soda. The latter I employ by making up a stock solution of sodium sulphite and sodium carbonate, 1 pound of each being dissolved in 3 pints of hot water and diluted when quite dissolved to make 4 pints. This is practically a 20 per cent. solution of each, and in this concentrated form the sulphite will be found to keep very well, certainly for a month or two. Weak solutions of sulphite do not keep at all well, and the carbonate also seems to prevent to some extent the deterioration of the sulphite.

Any plate that is now on the market for negative-making, so far as I am aware, can be developed with these two stock solutions of pyro and carbonate and sulphite. Unless the proportions are specified by the maker, a developer, each ounce of which contains

Ten per cent. pyro solution . .	20 minims
Twenty per cent. sulphite carbonate solution	2 drams
Water to make	1 ounce

will be found very suitable; in fact, it has answered with all the plates with which, so far, I have ever tried it, without any exception whatever.

Statements are sometimes made that pyro gives density, and that metol gives detail, and distinctions of this kind are drawn between the different developers. This seems to be very mischievous in its effects on inexperienced photographers. If they are using a developer which is not supposed to give density, such as rodinal or metol, and they cannot get density, they at once put it down to the developer. Yet the more I see of different developers, and of the way they behave in different hands, the more convinced I am that these distinctions are futile and largely imaginary. Certain am I of this one fact, and that is that I can get with the formula for pyro soda just given as much density as can be got with any other developer whatsoever, or as much detail and as soft and as harmonious a result as can be got with any other. Superficially, developers differ; some seem to flash up all the image at once, and then gradually build up density, while others seem to bring out the image more gradually; but when development has been properly carried out, and carried to the proper stage, there need be no difference whatever in the results.

Why, then, do so many prefer pyro? First, it is beyond question the most economical developer, going as far as any other and costing about half as much. Then it keeps fairly well in solution, as developers go, seems to suit all plates, and can be bought anywhere. These are advantages not to be gainsaid.

On the other hand, it has a nasty habit of staining. By this I do not mean that it stains the plates; used with a proper proportion of sulphite, it is as clean working in this respect as any of its modern rivals. But, however much sulphite we employ, it will stain the fingers if they are immersed much in it; and this, so far as I know, is the most serious count against it.

POINTERS ON COMPOSITION FROM SIDNEY ALLAN.

A PORTRAIT is the record of a person at a certain age, in a certain mood, in a certain garb. A good print is the result of what has happened in the studio previous to pressing the bulb.

One of the most, if not the most important factor in arranging the composition of a portrait is the correct placing of the head.

It is a fundamental rule that the face should never be placed in the centre of the picture.

A portrait (in particular, a bust portrait) should be as simple as possible. It should explain itself at first glance.

Never use the profile view unless the face warrants it.

The unsatisfactory rendering of hands is one of the drawbacks of photographic portraiture.

A background always consists of two masses, one lighter than the other.

The trouble with the painted-in backgrounds that have lately become so fashionable in photography is that they are not made by trained artists.

In groups, the people must do something, or be interested in something, or the result will, in nine out of ten cases, prove unsatisfactory.

In photographic portraiture, the simple light effects are the best.

The face should present the largest lighted plane in a portrait.

The larger the range of light and shade, the more accurate in expression, in construction, and modelling the face will become.

The strongest high lights on accessories always sacrifice something of the likeness to a pictorial effect.

Portrait photography has become more pictorial, but less clear and precise in expression.

The keynote of color in the human face is light, and it should be rendered in that way.

The majority of portraits to-day look as if the people depicted were mulattos or quadroons, which is not particularly flattering to the sitter.

The shadows of a hat can be used to great advantage as an eliminator of details in the hair.

The mother and child picture is apt to produce an emotional effect, and the better it does this the more satisfactory is the portrait as a picture.

The most natural and generally accepted method of placing the heads (in a mother and child picture) is to place the head of the mother higher than that of the child.

In draping, everything depends on lines that flow freely, that do not obscure the form, yet do not show it too clearly.

The less use you make of furniture the better you and your pictures will fare.

In photography, the representation of one picture in another should always be avoided.

PORTRAITURE.

PORTRAITURE, you will grant, is by far the most difficult branch of our art. Take any other subject as a subject for the camera, and with sufficient technical knowledge the obstacles are by no means insurmountable; but what else in creation can compare with the human countenance for mutability and variety of change? Health, temper, frame of mind, and dress are but a few of the con-

tending difficulties which meet the professional photographer, for to combine a pleasing portrait with a true likeness must be our end and aim. As our subjects are seldom perfect, it is necessary to keep constantly before our mental vision a distinctly ideal form, so that when deformity presents itself, or even a single deviation from our idea of perfection in the human form divine, we may be able to discreetly modify the defect by the various means at our disposal without entirely obliterating any point which may tend to spoil the individuality of our sitter, and so attempt a deceit which is a distinct violation of the rules of true portraiture.

I think that most of us are cognizant how very unmerciful photography at times is apt to be; but if we can only bring our artistic knowledge to bear upon the difficulty, it is often more easily solved than we should imagine.

Shall we look for a few moments at the different points of the face, remarking, first of all, on the mouth?

This is, perhaps, the feature, especially in ladies, which requires the most careful observation, and on no account should the mind of the subject be influenced to the consideration of it, or a total destruction of the natural lines will probably be the result. Much may be learned from a cursory conversation with a sitter, during which an opportunity is gained of observing the delineation of the mouth when in animation or repose. In many instances the youthful female mouth may be treated with the lips apart, but in this case a full illumination of the opening is necessary, as the tendency in photography is to obtain too dense a shadow, thereby destroying the delicate transparency that we admire in nature. Children's mouths are a fascinating study, with their beautiful, soft, mobile lines, full of a sweetness and repose seldom or ever to be found out of childhood. Unfortunately for photographers, however, this ideal expression is not the one most generally appreciated by the loving mother or auntie who may accompany the juvenile sitter, and a grin which distorts the bow-like mouth into a grin extending from ear to ear is more likely to meet with their favor. With advancing years the susceptibility of the mouth to change is more apparent than in any other feature. The development of characteristics, the results of certain habits, the circumstances of joy or sorrow, all tend to leave an indelible mark upon this most tell-tale feature, leaving compression of lips, and destroying with lines and twists the delicate mobility of youth. All this calls for our careful consideration in portraiture, and demands our utmost skill in dealing with it. For instance, a twist may often be modified by a judicious pose of the head, and I shall make a reference later on to the treatment of lines.

And now to pass on to the most attractive feature of the human visage, which is indisputably the eye.

Again I must revert to the child. Here we find the eye abnormally large, a fact accounted for by the growth of that organ not being in accordance with the other features. Both in children and adults this charming feature cannot receive too much attention, for here you have to deal with the "windows of the soul." All our most interesting subjects have fine eyes. While on this subject it is useful to remember that a certain latitude is allowed in the higher art of painting with regard to the size of the eye. But this is not a concession that we can apply to the photographic art. There are, however, certain conditions in our practice which tend to an opposite result, unless we are on our guard, among which I may mention the indiscriminate use of light as being the most guilty factor, and it should always be borne in mind that too much light has the effect of dwarfing the eye. Stray

lights are also detrimental, and are frequently caused by the mischievous use of white reflectors placed in too close proximity to the sitter. The seat of sweet feminine character is in the outer corner of the eye, and more particularly on the lower lid. Our greatest portrait painters fully recognized the importance of this most telling feature, for when receiving or parting with their subjects the eye was always the first and last to attract their attention.

We have now dealt with the two leading points of the face wherein mainly rests the expression, and the treatment of the other features—viz., the nose, chin, and ears—must depend on the judicious points of vantage which can only be selected by the photographer after a study of the contour of his sitter's head. The ugliness of a face may be decidedly modified by choosing either full, three-quarter, or side view, and the calling into requisition of the charm of light and the mystery of shadow, remembering that the naked truth is deceitful.

But one of the photographer's most serious barriers in the way of artistic effect is the constant contending with ugly fashions, the sleeve not infrequently proving a most troublesome point, its shape and size influencing in a large degree the scale of the head. The large, full sleeve, which, I regret to say, has become a thing of the past, was, in my opinion, admirably adapted for the square bust portrait, although it certainly had the disadvantage of emphasizing the defects in short, stout figures when full-length pictures were required. The present style of sleeve calls for special treatment, and only in exceptional cases is becoming. The arm usually emerges from a tuft of satin or other stiff material, about the size of a breakfast roll, and in bust portraits the short piece of arm which appears between the fulness of the sleeve and the lower margin of the picture seldom looks well.

But these and other vagaries of fashion are good tests for the photographer's powers of composition.

Children make delightful pictures, their simplicity and serene unconsciousness being qualities which lend themselves readily to the painter's brush, or the less pretentious camera; but to do them justice, in either painting or photography, needs a special study and love of infantile life. Reynolds was a great lover of children, otherwise our eyes could never have feasted on such art treasures as Lady Smith and her children, and many others.

His child models were, however, invariably well dressed, and here, again, as in adults, the photographer is met with a blank wall of opposition. A new stiff or starched dress is a garment usually brought into requisition for the important occasion, when an old, soiled, or flimsy frock would doubtless have been the very thing could the unhappy photographer have made his own selection. In the case of very young children the neck and shoulders should always appear, although there is a danger of making the head abnormally large, unless discrimination is used in allowing the dress to fall below the shoulders, thereby giving the appearance of greater width.

If the usual short frock is used, nothing is prettier for a child than a full-length figure standing alone, especially if taken from a low elevation, which gives the little subject dignity, and shows to advantage the limbs, which are always interesting; but this is doubtless the most difficult portrait to secure with any amount of success. The charm of our daily work with children is the constant anticipation of what may next reveal itself.

I will conclude with a few words as to the practice of retouching. As in land-

scape work, so in portraiture, we get too much detail; but, while not for one moment losing sight of the fact that all the predominant darks in the face are conducive to likeness, yet the excessive details which make their appearance on the intervening spaces can bear modification, as such detail is only troublesome to the eye, and not of service as regards the likeness; but when the retoucher directs his energies to the wholesale removal of the darks, then the likeness at once begins to suffer. You remember my reference to the seat of sweetness in the female eye, and if the fulness under it is removed, with it goes all the poetry.

THE PRICE AND THE REASON.

BY J. H. BURKHOLDER.

THE advanceemnt in photography in the last twenty-five years is far in excess of that which is realized by the casual observer, and yet the professional photographer stands away below par so far as commanding the dignity and respect of the public is concerned as compared to days gone by. Today there are too many who profess and are unable to "make good." Too many wise ones minus ability. The amateur, as a rule, is wise, but doesn't know. There are amateurs who are posted, amateurs who are indeed the expert, but they are not the rule. The first thing that the amateur of today sets forth is the postcard fad at "cut rate" prices. As soon as the camerist is able to discern the image on the ground-glass, he enlists in the "army of photographers," and is generally a good customer for "ammunition" from the beginning. He is not going to make photographs for the fun of it any longer. He is going to sell his productions at some price—whatever that is. Of course, he will get all he can, that is natural, but it is the beginning of a new schedule to be added to the innumerable ones already in vogue.

We now come to the postcard man—the 50 cents per dozen man. Then the better studios who make postcards at all the way from 75 cents per dozen to $2.00 per dozen. Is it proper that studios—good studios—should make postcards at all? How many of you have had customers to enter your studios, prospective customers for good work, at at least a fair price, and before leaving the studio leave their order for a dozen or two of postcards? How many of you have heard this remark in your own studios: "We'll just have postcards now, and get something better later on?" Alas! too many have heard the same old story. Then, what is the remedy? Stop making the postcard. Just so long as the feeling exists that "we make them because the other fellow does," just so long will the ruinous effects of the postcard be prominent.

This is not a decry of the postcard—not by any means; the postcard fad is on, the postcard man has his place; if he hasn't, he should have; the postcard business has proved lucrative to many a firm, is a prosperous business in its place, but keep it out of the well-regulated studios. It has done more to demoralize the price of good, substantial, honest photographs than any other one thing to my knowledge.

A great deal can be said of the coupon and ticket schemes, many things far from flattery, but the ruinous effects of these are practically worn out as compared to the postcard portrait of today.

You will ask, How quit making

postcards when Jones makes them at 75 cents per dozen; Smith makes sepias at $1.25, while Brown makes vignettes at $1.50, with a beautiful folder thrown in?

There is but one remedy: organize. Either stop making them or place the price where the matter will take care of itself. Of course, it is easier to organize than to remain organized. 'Tis true, nevertheless, that is the one remedy, and unless taken advantage of you must be content with the curse of the postcards.

Organize locally, compromise, have an understanding between yourselves, stick to the agreement, and take your medicine either one way or the other.

ENLARGING SINGLE FIGURES FROM GROUP NEGATIVES.

BY T. N. ARMSTRONG.

It frequently falls to the lot of most photographers to undertake the enlarging of a small head or single figure which is contained in a negative or ordinary print and is surrounded by other figures, such as are commonly seen in groups, and it often happens that such figures, by reason of their surroundings overlapping part of the same, cause no small amount of difficulty to a photographer when attempting to extract the figure for the purpose of future enlargement.

In all cases where the original negative is obtainable, there is no question as to the advantage of working on the same in preference to endeavoring to gain similar ends by manipulating a print made from such negative; but it often happens that the original negative is not forthcoming, and then there is no alternative but just to do the best with what material exists, such as a simple silver print.

Work of this description, as a rule, is seldom required from pictures that have been made within a recent period, but almost invariably falls to be conducted from photographs taken many years previously, and which are printed on albuminized paper, the texture of which is far more liable to offer difficulties than would be the case where they are printed on the more modern samples of Aristo or highly glazed gelatine or collodion surfaces.

A striking example of this sort of work has recently come under my observation, and which has proved of considerable interest in more ways than one. In the first place, the picture in question was made by means of wet collodion so far back as the year 1865. This was printed at the time on a sample of single albuminized paper, and, notwithstanding that this silver print has been subjected to the usual exposure in a family album, at the present moment it is absolutely free from any symptoms of fading, and is a strong proof of the permanency of a well-executed silver print by means of single albuminized paper.

So far back as the year 1865 the taking of groups, especially inside studios, by means of wet collodion was generally done in small dimensions, and therefore each of the figures (or faces, rather) is very small in the picture to which reference is being made; these probably do not exceed a quarter to three-eighths of an inch, the whole group of eight people being printed in *carte-de-visite* size.

We hear a good deal nowadays against the permanency of pictures printed by means of silver. Yet here is an instance where a print is to all appearances as fresh to-day as it was forty-five years ago, and is a striking tribute to the work turned out by the photographer whose name appears on the back of the card.

Somewhat recently the writer had the good fortune to spend a pleasant time with one who is now without doubt the oldest photographer in the west of Scotland, and who was an intimate friend of the brothers Mactear, and worked alongside of them in the very first days of daguerreotype and wet collodion. When speaking on the question of permanency, this gentleman remarked: "Oh, before double albuminized paper was known fading was never thought about." But with its introduction a sad change was brought about, and he can now point to proofs innumerable of his assertions, maintaining that all his prints dating back from the earliest days of silver printing are quite permanent, but those printed in after years seldom stood at the outside beyond six or seven years. at the best.

There is no doubt, however, that the grain of the paper is liable to cause more trouble when such small heads have to be enlarged from prints on single albuminized samples, and to avoid this grain, when work of this description has to be done, several methods have from time to time been advocated. One of these is to apply to the surface of the print a coating or wash of water-color pigment, blocking out all the surroundings of the head it is desired to extract. Ivory black and Chinese white are, when mixed, suitable pigments to employ for this purpose, any depth from black to a light gray being easily obtained; the application of such a pigment to the face of a silver print will, with care, cause no injury, and, even in cases where the object or head is very small in size, there is no difficulty to trace round the outlines of the face with the aid of a finely pointed sable pencil. When this first operation has been successfully accomplished, a negative, in slightly enlarged form, is made in the usual way, and this is subjected to a very thorough retouching, which will, if properly done, get rid of any coarseness which is almost certain to manifest itself. Enlargements made from negatives produced in this manner yield good results when finally worked up in black and white.

Another method which also yields excellent results is sometimes possible of accomplishment, having the further advantage of not requiring the application of any pigment to the surface of the print. This is done by providing a cut-out mask that just fits nicely around and suits the shape of the head that is being extracted; but how is anyone to provide such small-sized masks as from three-quarters of an inch or thereabouts? Such masks are certainly not a marketable commodity, but larger sizes are, and any stock of lantern masks can be utilized for the purpose. When it is desired to mask off, say, the head and shoulders of a figure in a group, a lantern oval mask having a white surface on one side must be procured; any dealer will supply them in various shapes, and, having obtained one that just suits the shape required, it should be placed against a piece of black velvet and pinned to a board—the white side out, of course; this is then photographed in reduced size on a slow lantern plate, and, if a small stop be used and the plate backed and developed properly, a negative will be produced having clear glass in the centre of the oval, and sufficient density around it to enable its being superimposed on the glass side of the negative which has been made from the paper print, and which it is intended to employ in the final enlargement.

In copying the paper print, much may be done to keep back the grain of the paper by so placing the picture in the best light for the purpose. This may mean using a somewhat direct source of lighting, but in nearly every case it will be more or less noticeable, and the negative, therefore, has to be skilfully retouched. In saying this I am quite cognizant that there are those who dispute

retouching in every shape or form, but my experience has taught me this, that anyone who has to cater for the public taste and to earn his bread and butter by means of photography cannot do without practising it in nearly every subject and branch of work, and I should like to know what professional can honestly say he never resorts thereto.

The fact is, modelling is an absolute necessity in nearly every branch of photography, and especially is this the case in the work referred to, and not only must the modelling be applied to the negative, but the final enlargement will also be most wonderfully improved by its aid.

It has been said that, in all cases where the original negative is obtainable, it is much to be preferred that it should be employed instead of a print from it. Of course, there will be no need for anything like the same amount of modelling when the original negative is available, and very probably no retouching of any kind will even be required; all that is necessary being the provision of some means to shield off objectionable surroundings to the head, and even in this event the work can be accomplished without manipulating the negative at all. In many cases this is the most desirable method to follow, simply because it does away with any tampering with an original, and very possibly a highly-prized negative, so that, in cases where the masking can be effected on the surface of the enlargement, it is better to arrange for it than to do so on the face or glass side of the negative.

To mask out objectionable surroundings to an enlarged head is by no means a difficult operation when proper materials are at hand for the purpose and the system employed in enlarging permits of it.

In large sizes, special cut-out masks will be required, but in smaller sizes an ordinary paper cut-out mount may be employed, provided the edges of the cut-out are true, so that, having selected the cut-out aperture which suits the size and shape of the head and shoulders of the figure when it is projected in enlarged form on the copying board of the easel, and having carefully adjusted the focus of the enlargement, the sensitive paper is placed in position, and by means of the non-actinic cap of the lens the image is projected on the same. The mask is then fixed in position over the sensitive paper and the exposure made in the usual manner.

The services of a good printing frame may be utilized for holding the paper and cut-out mask *in situ*, and when the enlarging is accomplished by daylight it is easily slipped into its proper position on the easel, and much comfort is experienced in executing enlargements in this manner.

The vignetting of enlarged heads can also be accomplished by employing a suitable cut-out mount between the lens and the sensitive paper, arranging this at the proper distance in front of the easel, and, when the form and other conditions of the negative permit of vignetting being resorted to, there is no doubt it is a very desirable method to follow. It must be borne in mind, however, that a few simple attachments will be required to hold the vignetter *in situ* during exposure. This may mean merely tacking the cut-out mask to a lath or flat stick, and nailing it on some support that will hold it steady during exposure, and the nearer it is placed to the sensitive paper the smaller the circle of light, and *vice versa*. But this is easily judged by pinning a sheet of white paper in the position the sensitive material is to occupy.

In using glass shields made in the manner suggested by copying white masks on lantern plates the utmost care will be required to obtain absolutely clean, clear results, and if on develop-

ment of the plate it is seen that the black velvet, from overexposure, has caused a reduction of the sensitive emulsion at those parts, the negative should be treated to a local application of some reducer whereby such deposits are removed.

These glass shields are very useful, especially in cases where several enlargements are required from the same negative. By using these shields attached to the glass side of the negative every enlargement is produced in exactly the same form, and if the same treatment is accorded each in exposure and development, there should be no appreciable difference between any of the results obtained by this method of shielding. With some of the other methods it is not so easy to get a number of enlarged prints all alike.

ON DISPLAYS.

THE quality and the amount of your show or exhibition work depends as much on your own individual taste, attainments, and power as upon your environment and upon your clientele, by which I mean, of course, your customers or patrons. The refined or æsthetic show work would be as out of place in a border town as would the painfully crude and literal display of the latter on Fifth Avenue. The mere transposition I have here suggested conveys an object lesson which does not need many more words in exemplification. To secure the appreciation of the refined, the amount of your display cuts no figure. Indeed, if overdone in this respect, it is apt to be a handicap. A pearl or diamond will draw the eye anywhere, but you will agree that neither will shine particularly if thrown in among a lot of imitations.

The crude show of your humble border town competitor shines by contrast with the tintype of the travelling studio wagon, and is entitled to its meed of praise on account of its isolated location and its obvious limitations.

It is vastly different with those living in closer touch with the advanced taste of the day. The matter of a suitable display of work for exhibition purposes requires no little consideration or taste, and considerable expense if we desire to present our very best. Very few studios are fortunate enough to have a reserve fund of desirable work from which to evolve a suitable and thoroughly satisfactory exhibit. Pictures on hand are usually culls, which, though often used in desperation for lack of better material, should not be used if by so doing you prejudice the really good ones in the balance of the exhibit.

Cabinets, half-cabinets, and cards, as well as the lesser ovals, have been styled "chicken feed," and when they are *alone* the prevailing sizes in a studio and they do not contribute materially to a very profitable income, why not conceive or plan your show work in a class or size that you are desirous of putting out? In the first place, such work would be vastly more creditable to the studio, as well as much more remunerative; hence it is imperative to *have* and *push* such a class. "But," you may ask, "how am I to use such work when 90 per cent. of my trade calls for cabinet and under?" The matter is comparatively easy, and there are several ways to accomplish it. In an earlier paper I have briefly sketched the means by which the cabinet photo was introduced; the sizes and styles must first be made and then shown, and if you have done your part

well, not much urging will be necessary to make them go. If you do not care to wait until you have a sitter with the desirable characteristics, you may cast about you and go on a "still hunt" for some such, and when found invite them, making, of course, the proper suggestions as to wearing apparel, etc. You can then go ahead and do your prettiest, both as to pose and lighting, always bearing in mind the effect you are striving for in the general display. I much prefer, however, to make the selections from salient sitters among my regular patrons. I know of many studios where it is the rule instead of the exception to make the larger negatives as well as the size requested; it will always be found profitable to do this when likely sitters appear, for the added expense is not much, and the result will, nine times out of ten, justify the extra trouble. It is the constant, ceaseless, ever-striving to surpass your best work that will land you at the goal of success, no matter what you undertake. Our business or profession does not differ in that from others, and the methods must often be compared, weighed, and applied.

Now, a few words about the display in general: "Concentration," says a humorist, "is better than scatteration," and so will say all the thoughtful ones. This holds true, whether we are dealing with an outside doorway or gallery entrance show, a show upon the studio walls or at a convention. Not only do these remarks apply to the whole exhibit, but to the individual parts as well.

Do not design a display that is "spotty," which you are liable to do by an unfortunate arrangement of sizes, large and small, improperly composed; or by injudiciously grouping pictures that agree well in form but do not harmonize in depth of tone. An agreeable effect should be apparent to the eye of the beholder even when he is so far distant from the grouped exhibit as not to be able to distinguish the individual pictures; this is a very severe test for composition, but such composition is essential if it is desired to make an effective arrangement, as well as one in which the individual pictures may be closely scrutinized for excellence. If the arrangement is framed either as an upright or horizontal oblong, the form can be carried out in the inner grouping, as many smaller oblongs carefully arranged will form a larger one, and while the effect is a little severe, it is better to use that principle than to break the arrangement abruptly by the unfortunate introduction of a larger form of subject, unless it be, perhaps, a proportionate oblong, which, though larger, will permit its introduction, and thus mosaic in pleasantly. A few general rules can be laid down. It is safe to "mass" the different sizes each by themselves, be they large or small; in this way, if you combine them properly, they will form a harmonious part of the whole. Most of these remarks are governed by the law of harmony rather than by the law of contrast; if you adopt the latter, execute your grouping with knowledge and judgment, always bearing in mind that the sizes must be then combined according to the humorist's law of "scatteration." I am here confronted with the extreme difficulty of illustrating pictorially the ideas I have been trying to set before you; as a matter of fact, to properly illustrate the subject, exhibition groups would have to be made up and reproduced in half-tone, but it is not possible here where I write to find a selection of subjects suitable and pertinent to the subject under consideration. However, if you have saved the back numbers of your photographic journals which treat of conventions and the various exhibits, you will surely see many which can be taken as model exhibits, though none are to be copied literally.

This would not be possible; for, in imitating closely another person's idea of grouping and arrangement, you might not be able to complete it by relevant photographic work; hence you might carry out the letter and entirely miss the spirit. I am inclined to think that all the masters of to-day do not attach the importance it deserves to a perfectly proper exhibit of their show work, apparently leaving it more to chance and fortuitous accident than to careful consideration of the exacting conditions.

The exhibit for the walls of the reception room needs much care and thought in selection and location. Here, if it is large, the amount of your show is apt to be a handicap as well as at your studio door, and perhaps more so. See that your walls have proper tone or tint; gilt frames add a richness that other kinds do not, and will fit and embellish most any picture. For colored work, it is almost imperative that gold be chosen. It is hardly necessary for me to enumerate the tones that are harmonious for frames as well as for pictures contained therein. Do not overload your photos with too massive frames, nor have the frames too near alike in size or style. Locate the principal pictures of the intended group centrally, and as a foil add only such frames as will not detract from the main one either by reason of size or form. Keep the group of frames well together and leave plenty of wall space for breadth and neutralizing effect. If there is one thing that can be said and that will apply to nearly all (I do not say all), it is that *too many* pictures are hung or displayed in studios generally. If there is something more that applies to a good many exhibits, it is that the same pictures are permitted to hang too long without changing. Do you wonder that I started in by saying that a proper show is a matter of expense? I should have said *great* expense at that.

TRADE NOTES.

CHANGE OF NAME. The manufacturers of the Cooke lens having reduced this famous lens to its simplest form—three simple glasses—now announce the change and simplification of their firm name. Hitherto trading as Taylor, Taylor & Hobson, Ltd., from now on the business will be carried on under the name of The Taylor-Hobson Company. Mr. J. Ronald Taylor will continue the management of the American business as before.

THE first 1910 catalogue to reach our desk is the one published by the Obrig Camera Company, of 147 Fulton Street, New York. It is a useful catalogue of its kind and covers the field of photographic supplies very thoroughly, and the prices are not more than you expect to pay for material of the best grade. One thing not mentioned in the catalogue is the intelligent service you always meet with from the Obrig Company. Send for their catalogue; they will be glad to serve you, and you'll be glad to have them.

WE have received illustrated circulars of a new method of dry mounting, known as Morgan's Patent System of Dry Mounting, Plate Marking, and Embossing. All three operations are done at one pressure. Seventy-five per cent. saving is claimed for the system, and the results produced are as near as possible "perfect" technically. The examples of mounting, die sinking, and plate marking we have seen leave nothing to be desired. We understand the machine will soon be placed on the American market, when it will be worth investigating.

CHAS. COOPER & CO., 194 Worth Street, New York, send us their new *Chemical Price List* for January, showing the current prices of all the chemicals used in photography and allied processes. A copy can be had for the asking; you should have one for your workroom.

A FIGHTER OF CONDITIONS, by Carl Thomas, is an interesting account of the attempt made by the Defender Dry Plate Co. to produce a dry plate second to none. The dry plate is one of the most sensitive products of science, and this little story shows how much money and time are sometimes required to produce it.

THERE are many photographers who want an Anastigmat, but do not care to make as large an investment as such a purchase usually involves. At the same time, they do not want to sacrifice quality and thus defeat the very end they seek.

It would seem the requirements of this class are fully met in the "Syntor," the inexpensive Goerz lens. For further particulars see the Goerz advertisement in this issue.

G. GENNERT, 24 East Thirteenth Street, New York, advises that he has just made arrangements with H. A. Whitfield for the sole agency of his well-known Spred Lite Flash Lamps. Mr. Whitfield is the inventor of the system of setting off flash powder by means of a percussion cap, and he has patents covering this method completely. He has constructed a full line of lamps selling at 60 cents to $6.00. The lamps are convenient in use, and can be held in the hand with perfect safety. They produce a sheet of flame varying, according to the size of the lamp, from twelve inches to thirty-six inches. The entire line will be handled exclusively by G. Gennert.

"CONCERNING the Complete Self-instructing Library of Practical Photography," is a sixty-six page book of endorsements of this monumental photographic library. The second edition, in ten volumes, has just been put on the market, and should find as ready a sale as the first edition—it cannot give more satisfaction. This is a set of books that no photographer should be without. Prospectus and particulars will be mailed on request by the AMERICAN PHOTOGRAPHIC TEXT-BOOK Co., Scranton, Pa.

"KINEMACOLOR," the greatest advance in the history of Cinematography" was demonstrated before a large and specially invited audience at the Madison Square Garden on December 11. It was a unique event, and for the first time in this country moving pictures were shown in all the colors of nature. The process and method of showing the pictures was ably described by the inventor, Mr. G. Albert Smith. The pictures shown were beautiful beyond description—scenes in the sunny southern French watering places, the more soberly colored farmyards and fields of England, and the gorgeous autumnal American forest tints were all alike rendered with a truth to nature as to be almost startlingly vivid. A reel of film showing indoor portraiture with movement showed the possibilities of the moving picture machine for studio work or home portraiture.

FROM President A. T. Proctor we received a handsome calendar with a poetical admonition to get ready for the next annual convention of the National Association, to be held at Milwaukee in July next.

THE officers of the Ohio-Michigan Photographers' Association held a meeting at Jackson, Mich., recently, and set their 1910 convention dates for March 22, 23, and 24, to be held at Jackson, Mich. A good program has been arranged, and a big attendance is anticipated.

WE are glad to note that it has been suggested that one session of the next annual meeting of the New York Professional Photographers' Society be devoted to an art talk, and that a competent art critic be engaged to criticize such work as may be offered. This suggestion is very much in order, and we hope to see it carried into effect. We also hope that some of our more prominent photographers will not be above offering their work for criticism. It is always interesting and will be much more so when under criticism.

WE have received from Wilhelm Knapp, Halle, Germany, number sixty-seven of the *Encyclopædia of Photography*. It is an interesting and learned exposition of "Röntgenographic" or *x*-ray photography by Dr. Lüppo Cramer. To those interested and who can read German, it is well worth its price, which is m. 4.80.

FOR your hand camera the film pack has a hundred and one advantages, and the Seneca Film Pack Adapter can be fitted to any camera, and is a boon and a blessing to all film users.

AS the busy season approaches it is advisable to see that you are prepared for any emergency. One of the greatest aids to getting out a lot of work in a little time is a printing machine. The automatic Contact Printing Frame put on the market by the VOTE-BERGER COMPANY, 1810 West Avenue, La Crosse, Wisconsin, is one of the simplest and quickest machines for turning out perfect prints that we have seen. A simple up-and-down movement with one hand makes the print; an adjustable vignette carrier enables you to doctor a negative in the shortest possible time; the results secured are uniform and accurate. It will pay you to investigate the merits of this machine.

AT the Little Galleries, 291 Fifth Avenue, New York, is being held, January 21 to February 5, an exhibition of color photographs by Steichen. Some thirty color plates demonstrate very clearly the beauties and possibilities of color photography when intelligently followed up.

The next exhibition at the Little Galleries, opening on February 7, will be devoted to a series of water colors, pastels, and etchings by John Marin, of Paris and New York. Photographers are specially welcomed to the Little Gallery exhibitions; they would see much intersting work and would get a broader view of their profession when they realized the position it is taking among the other mediums of expression, mainly through the lifelong exertions of Mr. Alfred Stieglitz, to whom much credit is due.

THE famous Baird Studio, at Pittsburg, has been forced to the wall and all the negatives of Pittsburg's "Four Hundred" have been sold to the R. W. Johnston Studios, as have all the fixtures, apparatus, and photographic materials.

WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
L. W. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

EDWARD L. WILSON, 122 EAST TWENTY-FIFTH STREET, NEW YORK
Entered at New York Post-office as Second-class Matter

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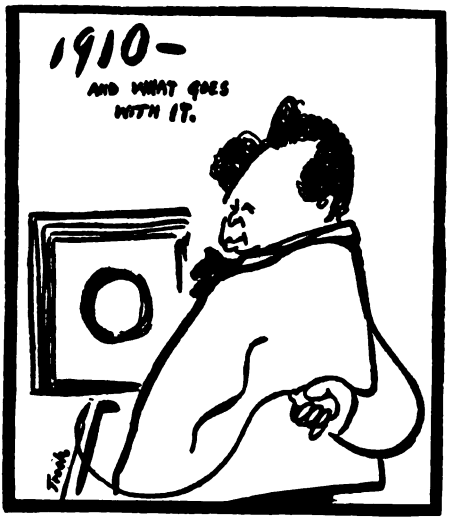
EDITOR'S TABLE.

"TAKEN BY STRAUSS" is the legend under a clever skit on the Cook-Peary polar discovery. The picture shows Cook and Peary gazing disappointedly at a hole in the ground, from which J. C. Strauss has extracted the North Pole and is running off with it on his shoulder.

Another New Year's card from the Strauss Studio we reproduce below. Any of our readers who have seen Mr. Strauss will recognize the operator with the receding forehead. We heartily reciprocate the good wishes the card conveys.



The American Annual of Photography, 1910, 328 pages, illustrated; 32 pages in color. Paper covers, 75 cents; postage, 15 cents; Library Edition, $1.25; postage, 20 cents. GEO. MURPHY, Inc., New York, sales agents. The *Annual* this year is, if anything, an improvement over any previous volume, and presents a series of articles that are of much interest and helpfulness. The illustrations, wonderfully well reproduced, are contributed by our best workers the world over, some few of which we are glad to reprint in this issue of the MAGAZINE. The articles cover the ground from "Transportation of Photographs" to "Screen Plate Color Photography," and make many pages of good reading. The usual amount of formulæ and tables is gathered together at the end of the book, making it indispensable to the practical photographer.

ONE of the most complete indexes issued by any photographic periodical must surely be that issued by the *British Journal of Photography*, in its December 31 number. Its nine pages of small type are a surprising insight into the ramifications of photography. We congratulate the editors on the completeness of their work.

SIDNEY ALLAN (Sadakichi Hartmann), our esteemed contemporary and contributor, is publishing a monthly magazine, *The Stylus*, devoted to art and self-expression. The price of admission is $3.00. Rather high, you may think, but the editor claims that there are so few interested in art anyhow that they will gladly contribute the three dollars. The contents are devoted principally to articles on painting, sculpture, architecture, and occasionally on photography. No further recommendation is necessary, as we all appreciate Sidney Allan's bright and breezy way of expressing himself. Sample copies at 25 cents can be procured by writing directly to S. Hartmann, 1790 Walton Avenue, Bronx, N. Y.

THE MONTROSS GALLERY, Thirty-fifth Street and Fifth Avenue, New York, is holding an important exhibition of the work of Edward J. Steichen in oil and water color paintings and photography. The latter comprises some of his famous portraits. We wish every photographer in the country could see his portraits of Watts and Lenbach. As examples of satisfactory and satisfying portraits, we have seen nothing finer. The paintings demonstrate that Mr. Steichen is equally a master with the brush as with the lens.

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Vol. XLVII ✣ ✣ ✣ ✣ No. 639

MARCH, 1910

WILSON'S PHOTOGRAPHIC MAGAZINE

DEVOTED TO PHOTOGRAPHY MONTHLY: ILLUSTRATED

$3.00 A YEAR

SINGLE COPY, 25 CENTS

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OUR PICTURES:

Frontispiece Engraved from a Photograph by Miss Bessie Buehrman, New York, Engraved Supplements from Photographs by F. W. Tyler, New York, Hiawatha and Minnehaha, by Grace Chandler Horn, Petoskey, Mich., and Louis R. Bostwick, Omaha, Neb.

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By Bessie Buehrman, New York

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVII MARCH, 1910 No. 639

THE "REAL THING" IN THE PICTURE.

SPEAKING before a gathering of professional photographers, one of our best known photographers made the remark that "you can get composition and all those things from a dry book, but I want you to get at the *real thing* in the picture." Unfortunately for his hearers, the speaker did not define the "real thing" in the picture. We are not denying its existence, and acknowledge the difficulty of defining it.

Granting the soundness of the advice, to get at the "real thing" in the picture, we take exception to the implied inference that it is something not to be learned from dry books, like "composition and all those things."

The "real thing" in a picture is that undefinable something that arrests and holds our attention. The most uncultured and inartistic people are stirred to admiration at the "real thing," as shown in Da Vinci's "Mona Lisa;" but the "real thing" was not put into this most wonderful portrait in a haphazard manner by an artist who had not studied "composition and all those things from a dry book." Da Vinci spent over four years of actual work on the picture, following many more years of hard study and close attention to dry books.

The man behind the camera at Coney Island, who makes six postcard pictures for a quarter, spent very little time getting "composition and all those things from a dry book." The only real thing he gets is the quarter in his pocket. Had he more knowledge of "composition and all those things," he would get more of the real thing into his work, and earn more than a precarious living at a summer resort.

The photographer who would improve his work, who would get the real thing into his portraits, must first know how to put it there. He must study the portraits of every great master, ancient and modern; he must profit by the experience of those who have gone before him; he must read all the books bearing on his art that he can lay his hands upon, even if they are dry. "Knowing how" is only got by "learning how."

P. A. OF A. EXPENSE ACCOUNT FOR 1909.

BELOW we print the complete expense account of the Photographers' Association o America for 1909. As stated by Secretary Harris, this is the first time a detailed account of expenditures has been published. Hitherto the members of the Association were informed that four, five, or six thousand dollars were accounted for by vouchers numbered so and so to so and so. The magazines have always contended that a detailed statement should be published—not because it was ever thought that the officers feared publicity, but simply that the members of the Association might know how their money was being spent.

Some members will be surprised to find that the School of Instruction cost almost $800, especially in view of the fact that the following paragraph appeared in President Barrow's "Last Call," in the July, 1909, magazines:

"When it is possible for an Association to assemble talent of this caliber (referring to the demonstrators) for mutual improvement, its members should appreciate the fact that they are not secured by *pecuniary considerations.* They give freely of this knowledge and valuable time to uplift and advance the movement of associated interests in photography, *purely from a fraternal standpoint.*"

We attended the lectures and demonstrations, and they were well worth every penny expended on them, and the $800 was well invested. Many members of the Association would scorn to ask something for nothing. They will be glad to know that their Association was in a position to pay its lecturers.

Editor, WILSON'S PHOTOGRAPHIC MAGAZINE:

Find enclosed my report for 1909, the expense account itemized and divided into two columns. The first column is the total expense for each heading, the second column for each item. As far as I know, this is the first time that the Association expense has been published in an itemized form.

Respectfully yours,

GEO. HARRIS,

Secretary.

SECRETARY'S REPORT.

Cash received, memberships and dues		$4,054.50
Ladies' pins		96.50
Advertising and space . . .		4,229.00
Paid out on vouchers, item attached	$6,595.52	
Balance added to surplus . .	1,784.48	
Total	$8,380.00	$8,380.00

P. A. OF A. EXPENSE REPORT FOR 1909.

1909	Five pct. tot. of two officers.	$577.25	
Jan. 1.	Treas. com. for 1908 .		$228.63
	Sec. com. for 1908 .	288.62	
Jan.	Officers exp. total, div. as follows . . .	$1,171.06	
	Pres. ex. brd. exp. .		57.01
	Pres. N.Y. conv. exp.		40.00
	Pres. Pa. conv. exp. .		35.00
	Pres. Chicago to St. Louis exp. . . .		30.00
June	Pres. Rochester and return exp.		38.50
July	Pres. convention exp. .		67.76
Jan.	1st vice-pres. exec. brd. exp.		63.00
July 1.	1st vice-pres. conv. exp.		92.50
Jan. 2.	2nd vice-pres. exec. brd. exp.		32.26
June	2nd vice-pres. Rochester and return exp. . .		35.51
July	2nd vice-pres. conv. exp.		67.76
Jan.	Treas. exec. brd. exp. .		54.00
July	Treas. conv. exp. . .		57.50
Jan.	Sec. exec. brd. exp. . .		57.50
April	Sec. N.Y. to Boston exp.		34.10
June	Sec. Rochester exp. .		33.00
July	Sec. conv. exp. . . .		70.96
Jan.	Exec. brd. meet., hotel exp.		57.15
July	Convention hotel exp. .		246.55
	Officers' incidental exp., total	505.05	
	Pres. incidentals, etc., Jan.-Nov. exp. .		88.06

July	1st vice-pres. incidental exp. . . .		$40.95
	1st vice-pres., hang. and pack. exp. .		45.15
	2nd vice-pres. incidental exp. . .		23.37
	Treas. incidental exp..		102.90
	Treas. asst. exp. . .		25.00
	Sec. stamps for programs exp. . . .		42.68
	Reg. corres. exp. .		124.74
	Telephone exp. .		12.20
	Printing exp., total .	1,646.65	
	15,150 ret. postals .		303.00
	88,862 pieces of printed matter, such as statements, folders, process let., bill heads, envel. cards, tickets, state R. R. rates, floor plans and programs . .		421.25
	Vouchers		6.00
	1800 eight-page constitutions (old) .		29.00
	2000 twelve-page constitutions (new) .		25.00
	Engravings, line cuts.		9.00
	Insert names in certificate		14.50
	Life certificate (Dührkoop)		25.00
	Association Annual (2000 copies exp., including cuts, printing, inserts, history, postage, etc.)		797.90
	Clasp envelopes for same		16.00
	Prizes, total . . .	125.00	
	First prize for best invention . . .		100.00
	Prize guessing contest		25.00
	Stenographic work, total	117.15	
July	Convention (House)		$103.00
	Canadian (Croughton)		10.00
	Exec. meeting (Davis) . . .		4.15
	School of Photography, total	791.26	
	E. B. Core . . .		100.00
	W. H. Towles . .		100.00
	F. M. Somers . .		100.00
	C. F. Bradley . .		100.00
	Mrs. G. Kasebier .		100.00
	School lecture, Ryland Phillips . .		200.00
	Ryland Phillips, Rochester (exp.) (June)		36.61
	Extra lecturer exp. .		15.00
	Model for demon. .		16.00
	Fittings for studio .		14.50
	Retouching . . .		9.50
	Information bureau, total	122.16	
	Information bureau exp.		97.30
	Boys for doors (convention) . . .		8.95
	Messengers, express, etc.		15.91
	Hall, total exp. . . .	1,112.89	
	Carpenter work, plumbing, electric work, and cleaning		868.39
	Furniture, decorations, etc. . .		202.25
	Signs		27.25
	Architect's floor plans		15.00
	Other total exp. . .	427.05	
	Buttons		297.00
	100 leather card cases		24.00
	Music (Wed. night) .		30.00
	J. C. Abel (advertising)		25.00
	Chas. Wesley Hearn .		25.00
	Alfred Holden . .		26.05
	Total	$6,595.52	$6,595.52

TO THE MEMBERS OF THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

To follow in the footsteps of the men who have held the office of President in the Photographers' Association of America, and who have without exception upheld the honor of American photography and the prestige of this Association, is no light task for any man, however competent he may be. So, in assuming the duties and prerogatives of your presiding officer, I feel that I have undertaken a work that will require my every effort and the most serious endeavor to bring it to a successful conclusion at least so far as *my* term is concerned. I know that the members of the Association, having

honored me with their confidence in electing me to the chair, will also honor me by lending their aid in advancing the interests of the Association, and more particularly in helping to bring the 1910 Convention to a successful issue.

As matters are at present, the work of your officers for the year is largely devoted to planning and conducting the Annual Convention. By vote of the members this will be held at Milwaukee, and at the recent meeting of the executive board plans were made which it is hoped will assure not only a large attendance at the meeting in July, but also a most interesting and instructive session, which shall combine all those features which have made the Conventions of the National Association so popular. It is a little early to particularize, but I may say now that the School of Photography having found such favor, we have decided to continue this feature, and, with the knowledge gained in the past, to plan it along even better and more valuable lines. I have received assurances of assistance from the very pick of our profession, giving a guarantee that the School program will be conducted with serious purpose and with the one idea to make it of value in the broadest way to the largest number.

Our Convention Hall is the finest meeting place in the country, and gives us ample room without crowding for the various purposes called for. The Exhibition Hall in particular is a well proportioned room, that will permit of hanging all pictures entered in a manner that will remove all criticism.

I am especially proud of the fact that during my term of office the women photographers of the country will meet as a body, distinct and yet a part of the Association. They will have their own exhibition—in the Exhibition Hall—and they have arranged to have the leading woman photographer of the country present to criticize their pictures. As these criticisms will be given in open meeting, it is, of course, the privilege of all members to share in the instruction that such criticism is bound to impart.

The second Congress of Photography will meet during the Convention, and I am assured that most of the State societies will be represented. Here is the opportunity to bring before the photographers of the country such suggestions for the general welfare as may be thought advisable. The Congress is in its infancy as yet, but I see much for it to do in the near future, and it should have the earnest consideration of all who are interested in improving the status and standard of professional portraiture.

The manufacturers will be well taken care of. The halls at their disposal are large and well lighted, and, as we are going into territory this year that has not had a national meeting in several years, there will undoubtedly be a full representation of manufacturers and others interested in the commercial side of the business.

Of the entertainments to be offered to the members, it is too early to speak. They will be abundant and varied. The local Milwaukee photographers are looking after that end, and, with the proverbial Milwaukee hospitality, there need be no fear that anything will be lacking for the amusement of all.

Several of the States nearby to Milwaukee have abandoned their Conventions this year, in order to join with us and make our 1910 Convention that much more successful.

I feel that the officers of these State organizations are doing me a special favor in thus forwarding our interests, and they have my warmest thanks.

After all, I am but in the position of a general with an army back of him. I may direct and plan, with the assistance of my brother-officials; but unless

I have the good-will and earnest support of the rank and file, in this case the members of the Association, I can accomplish but little. It is to urge this good-will and support that I am addressing you early in the year. Weeks and months pass quickly, and unless we prepare well in advance and make up our minds that we are going to stand by each other and by our Association, we shall find July upon us and ourselves unprepared for the event. Therefore, let me call upon you *now* to determine to be in Milwaukee when the roll is called; let me call upon you now to prepare your exhibit, bearing in mind always that it is quality only that can count among your fellows, and that if each of you does his best, the 1910 Convention will show such a set of pictures that will be hard again to equal; and let me call upon you to urge your neighbor to become a member of the Association, for you can do yourself the greatest good by getting all to work in harmony and for the general welfare.

If, when the Convention is over, we have progressed one tiny step in the creation of the universal photographic brotherhood which is, after all, the aim of this Association, I shall feel that my work has not been in vain.

Fraternally and cordially,

A. T. PROCTOR,
President P. A. of A.

PROFESSIONAL PHOTOGRAPHERS' CLUB OF NEW YORK.

JANUARY 27 marked the activities of the Professional Photographers' Club of New York by the first "Loan Exhibition" of photographs at their clubrooms, 123 Second Avenue. The hall was overcrowded with a studying, scrutinizing, and ever-criticizing lot of young and old photographers, all eager to learn. The exhibit was a representative collection from the most conservative to the most radical of some of our best American workers.

Mr. Pirie MacDonald, in his usual talented and eloquent way, gave an excellent review and criticism of most of the pictures, interspersing his remarks with some general and instructive comment.

Mr. MacDonald was well represented on the walls by six of his remarkable character portraits of men.

Mr. B adley had three delicately handled portraits of women, characteristic of the familiar work of the gentleman.

Mr. Falk had three large, conservative, but most judicious and technically faultless portraits.

Mr. Dudley Hoyt—one—but a good one; a portrait of a woman, and everybody admired it, especially the manipulation of the drapery.

Mr. Rudolph Eickemeyer showed his skill not only as a portrait photographer, but also as well in his landscape genres, some of them reminding of copies of Corot or even Millet.

Mr. Lifshey had one *gem*.

Mr. Bangs, three of those somewhat out of the ordinary pictures that so captivated quite a portion of the best of the theatrical profession.

Mr. Earl represented "Society as she is" in splendid prints.

Miss Alice Boughton attracted the attention with her radical and most artistic, rather sketchy portraits, and especially with her Testament illustration of "Christ Healing the Blind," resembling a Titian drawing done up to date by photography.

Mr. Mock, of Rochester, gave us a

rejuvenated portrait of the veteran, George Rockwood, and one of his favorite young lady models, remarkable for exquisite technical finish and representing the class of "Work that Tells."

Mr. Goldensky had three portraits of different subjects differently handled——a rugged man, a society lady, and the transparent Mary Garden.

Mr. Ellis and many others were equally as well represented, and the evening proved a most instructive and pleasant event in the annals of the Professional Photographers' Club of New York.

ELIAS CHAIT,
Secretary, New York City.

A FEW REMARKS ON SHOW-CASES.

THE showcase is, no doubt, the safest and most appropriate vehicle of advertising a photographic studio. It attracts the attention of every passer-by, and, if by chance your own portrait should be in a week or so, you will be astonished how many people, even perfect strangers that you meet casually, will tell you that they have seen it and recognized you.

The argument that too many showcases in one block are valueless, that one interferes with the other, and in that way fails to produce the desired impression, is paradoxical. A showcase, no no matter how many others may be in its immediate vicinity, is an isolated object, and if attractively arranged will draw its share of attention. There is a plentiful sufficiency on Fifth Avenue, not quite as bad as it is said to be in European cities, where, in Munich, for instance (as shown in our illustration), in the Maximilian Strasse, the main thoroughfare, thirteen houses, with sixty-eight store windows, are overcrowded with not less than eleven showcases. In such instances, it is, as in all things, a survivial of the fittest. It is a legitimate competition, and the photographer who is most skilful in his display will win out.

Photographers ordinarily do not bestow enough care and attention upon their showcases. Many of them look slipshod, neglected, and even ridiculous. There are a few fundamental rules to go by, and it is the object of this article to discuss them. There are four propositions to consider: First, the construction of the case, notably its dimensions; second, the placing of the same; third, the interior arrangement; and fourth, the display of the prints.

The construction of the case is naturally influenced by the available space. Lack of space has produced a decrease in size. Cases 80 x 100 inches are rarely seen in these days of exorbitant rents, and they really represent little more than a waste of space. They do not concentrate the attention. Fig. 1 is supposed to be 80 inches high. The distance from the street level to the lower edge is about 28 inches—the height of an ordinary table. The ordinary eye level is about 60 to 62 inches, and the eyes of the average beholder would strike the case at the line indicated by the arrow, about 32 inches above the lower edge. The normal vision would be attracted only by the lower row of prints. (The oblong at the bottom is supposed to contain the name of the firm.) To appreciate the third row, the beholder had to step back and crane his neck; the upper rows would produce no effect at all; and if the beholder should be shortsighted, even the lowest row would necessitate close scrutiny.

The moral of this argument is, that

cases in this order are bad advertising mediums. If the prints cannot be seen, what is the use of exhibiting them?

Fig. 2 shows a better arrangement. One large print would attract immediate attention. Another way would be to hang four medium-sized prints as shown in Fig. 3. It is at least a more pleasant arrangement, even if the upper two hang too high.

An ideal arrangement is that of Fig. 4. This case is supposed to be an oblong of the dimensions 10 x 7. The beholder can see at one glance all the various exhibits. They make an even, agreeable impression, and do not look topheavy, as the display in Fig. 1.

A wooden case with a plain iron frame is most recommendable. Iron can easily be colored by ordinary paint. This will protect the ironwork from getting rusty. They will wear and look well. Black, gray, and brown are probably the most suitable colors; but this depends much on the surroundings.

The illustration given represents such

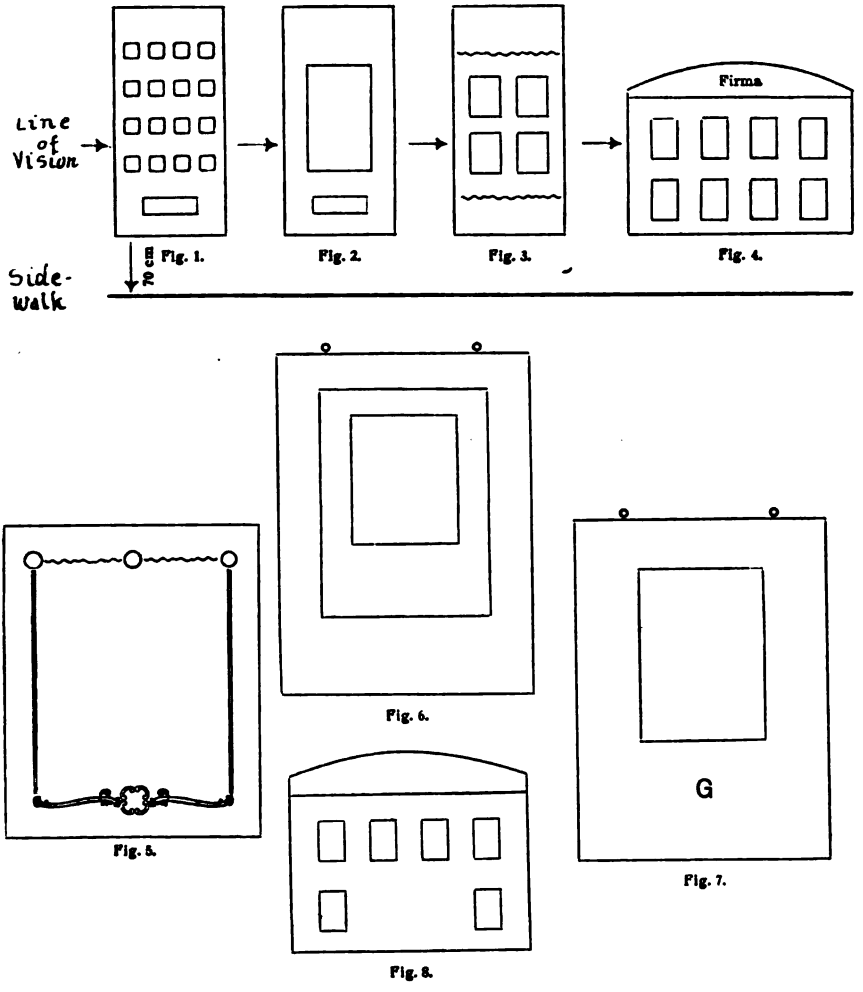

Fig. 1. Fig. 2. Fig. 3. Fig. 4.
Fig. 5. Fig. 6. Fig. 7. Fig. 8.

a case. It shows good taste, and as it is one of the most effective ways to make the gallery owner known to the general public, he should be very anxious to create such an impression. It reflects in a way the quality of his work.

The framework of showcases should never be of polished brass or loudly colored, as it is not the exterior of the case, but its contents, that should attract immediate attention. Bronze, on the other hand, is a dignified material, and will show up to good advantage. Unnecessary ornaments resembling a frame, as in Fig. 5, should be avoided. A showcase is a frame in itself, and any elaborate effect will detract from the prints.

Figs. 6 and 7 show the display of a single frame in a small case. The letter *G* indicates the position of the monogram or name of the firm.

In these days of electricity, many photographers make a display of their wares at night. The simplest method of illumination will always be the best. The source of light should not be seen, or arranged in a simple, artistic manner by an electric light bulb of agreeable shape in handsome, unobtrusive fixtures.

The empty interior must be in perfect harmony with the exterior. A white case cannot be furnished with pink or green plush. Velvet and plush are not in good taste. Materials reproducing gobelin patterns may look attractive. But buckram in light and delicate tones seems to be the most plausible and least expensive of all backgrounds.

The background, of course, must form a harmony with the color of the prints. With dark prints the background should be dark, but a trifle lighter. With light prints the background should always be a trifle darker.

The arrangement of the prints should be simple. A straight arrangement, as in Fig. 8, is better than a circular one. It is not absolutely necessary that the prints be of uniform size, but a mixture of framed and unframed prints, miniatures, etc., should be avoided. The color of the different prints should not differ, as it would spoil the tonality of the general effect.

These are some of the rules that every photographer should follow. It is probably unnecessary to say that the case should make a clear and cheerful appearance, and that the exhibits should be changed frequently—every week, or even twice a week (in smaller towns)—to keep up the interest of the regular passer-by.

THE CONTINENTAL CAMERA COTERIE.

REPORT FROM THE SCRIBE OF THE COTERIE.

THE Continental Camera Coterie is an organization without officers.

It is a club without a home.

It has a membership without dues.

It conducts its work without constitution or by-laws.

It meets without having a fixed time or place.

Its standard is ability to produce quality work in photographic portraiture.

Its animating principle is educative.

Its motive is to uplift the professional status.

Its cohesive force is comradeship and reciprocity in helpfulness.

Came a message from Rinehart of Omaha to Strauss in St. Louis: "I want an excuse to get away for a few days. It's quite a time since we've seen each other. Why not meet soon, say in Chicago."

Wrote Strauss to Steffens: "How

would you like to have the crowd visit you? Fix the date."

To which the Commodore: "Have the Scribe bid the boys be here on the twenty-second."

Whereupon went out copies of the following:

You are commanded
To join in a
Pious Pilgrimage
To the
Sacred Shrine of Steffens
In Chicago, where the
Continental Camera Coterie,
And others making a Bully Bunch,
Will meet in
Solemn Convocation
On Saturday, the twenty-two-th of January.
You are also commanded
To bring with you,
As a sin offering,
Five or more specimens
Of your quality work.
Pictures shown at Dresden barred.
By order of Saint Joseph Steffens.

In response, there partook of the genial hospitality of the Commodore in his sumptuous Studio:

Pierce, Boston,
Hoyt, New York,
Clark, Detroit,
Somers, Cincinnati,
Stein, Milwaukee,
Rinehart, Omaha,
Edmonson, Cleveland,
Strauss, St. Louis,
Proctor, Huntington,
Schneider, Columbus,
Gross, Chicago,
Koehne, Chicago.

Says Pierce: "It was the most inspiring meeting, the most beneficial, the most successful ever held." This is the consensus of the expressions of all.

"Some of our great teachers met and, forgetting they were teachers, through light words and laughter taught by indirection more than we could have learned in solemn, stated meeting," says Proctor.

The marvellous results secured in the demonstrations with the novel artificial lighting apparatus constructed by Steffens were most enthusiastically commended.

Many believe that this latest achievement of the Commodore marks the beginning of a new epoch in photography and will revolutionize negative making.

Concerning which, Rinehart says: "When this apparatus is improved and completed, we will use it in preference to daylight on account of the ease in securing location for the small space required."

Quoting Clark: "The prints were of a higher order of technical excellence than had ever been shown before. Some splendid examples were exhibited by Stein and were enthusiastically praised."

"The Commodore, as usual, had pictures which were superb for technique, good composition, and delightfully interesting. Then, too, Strauss gave a clear and comprehensive talk along the perplexing lines of the relations which should exist between the sitter and the maker of portraits regarding prints for publication."

The position taken by Strauss is "that no self-respecting photographer should deliver a print for publication without the consent of the subject. Further, it is unbusinesslike to supply prints without a fair compensation from either the subject or the publisher. I advocate the more general use of the copyright privilege and urge that a signed permission to copyright should be secured from the sitter."

Pierce agrees: "We photographers should take a more dignified attitude in this matter. A newspaper or magazine is no more entitled to free photographs it than is to free news items, free raw paper, or free printing ink."

"Illustrations from photographs are

just as essential to the paper or periodical of today as any other element in its makeup. Coöperation among us in this matter will increase the respect of publishers for us and bring many a dollar toward paying for materials."

To which Stein adds: "The talk on cutting out the giving of free prints to the papers and periodicals of any kind was good. The meeting was instructive and worth travelling a long distance to attend."

The school of criticism is always an interesting and helpful incident of the meetings. In these discussions each one comments on the work of the others. This is done with absolute freedom and perfect candor—given and received in a spirit of friendliness, even when adverse.

"Was a great treat to me," says Schneider. "The manner of criticising pictures was proper, going right to the core. Profited greatly by examining the prints which were brought."

"I was particularly impressed," says Hoyt, "with the benefits which a conference of this kind can accomplish and the earnestness with which many valuable suggestions were handled."

And Somers: "The meeting was the most profitable and the warmest socially I have ever attended, and the Commodore the most charming host ever."

"More than that," remarks Proctor, "you cannot come in the presence of Steffens and these men without learning the latest phase of things artistic. The conference will always remain a thing of grateful and pleasant memory."

PHOTOGRAVURE FOR THE NOVICE.

[NEXT to the direct photographic print, a photogravure is the best and most satisfactory reproduction, and is unrivalled as far as the quality of the work is concerned. The process of making the photogravure plate is not a very difficult one, though it calls for some skill. The following interesting paper from the pen of Mr. R. G. Rolfe is reprinted from the *Amateur Photographer and Photographic News*. The professional photographer with time on his hands might try his hand at reproducing a good-selling local celebrity in photogravure.—ED. W. P. M.]

There are, doubtless, many amateurs who would like to experiment in this beautiful process, but who are deterred from doing so either through the fear that it is intricate or that it is expensive.

In the following articles I shall take the reader step by step through the various stages of the process, and show him how he can turn out fairly good plates at very little cost. The average photographer will have most of the things required at hand, especially if he works the carbon process, and the other things can easily be obtained as he goes along, until the final stage is reached, when a copper-plate press, or, failing that, the domestic mangle, will be wanted for printing from the plates.

The various stages of the process are as follows: Making the transparency, graining the copper-plate, making the carbon resist and developing it on the grained plate, etching the plate, finishing the plate, and finally, making the prints.

Making the Transparency.

Now, having introduced the subject, I will take the reader by the hand and initiate him in the mysteries of the process. I assume, of course, that you can turn out a passably good negative,

and have a batch of them which will give a good print on P.O.P.

Let us select either a landscape or a seascape subject for our experiment.

As I purpose conducting our experiments on a small scale, it will be necessary to make our transparency in the camera. There are two reasons for this: First, because for truthful work we shall require a reversed transparency; and secondly, because we shall want to reduce the size of our subject if we intend to use the whole of it.

We may, however, if we are not particular on either of these points, make our transparency by contact.

You will, of course, be familiar with both these methods of producing lantern slides, as they have often been described in these pages, and it is unnecessary for me to repeat them.

There is another method for producing the transparency, and that is by the carbon process. In this, special transparency tissue is used, and the reversal comes in the ordinary way by single transfer. As I shall deal with this process when we come to making the resist, I shall defer the details until that stage is reached.

Now, I want you at once to dismiss from your mind the idea of a lantern slide as the type of transparency that will be suitable for the purpose. We want nothing so brilliant; no clear glass high lights or very transparent shadows. What we want is a transparency with a faint image, or veil, all over it. The reason is this: A lantern slide is practically the final stage, but our transparency is only an intermediate one. The former would give us a harsh, contrasty result, while the latter will give us a soft result, full of gradation, and a better resist when we come to print from it.

We will therefore select a slow, ordinary plate for the purpose of making our transparency. When you have made the exposure you may develop it with your favorite formula if you like, or use the ones given here, which I have found work very well for the purpose.

No. 1.

Hydroquinone	40 grains.
Sulphite of soda	½ ounce.
Water	5 ounces.

No. 2.

Caustic soda	20 grains.
Bromide of potassium . . .	15 grains.
Water	5 ounces.

Use equal parts of each.

In making the exposure it is as well to slightly, very slightly, overexpose; and, in developing, not to stop too soon.

There is one thing I wish to warn you about, though it may seem unnecessary, viz., the speed of the plate.

I have recommended a slow, ordinary plate, and if you will glance at a table giving comparative speeds between lantern plates and ordinary plates, you will see that the latter form are six to twelve times faster than the former, the relative speed varying with the different makers.

Now, if you make your transparency in the camera, you will not be likely to err much, as you are used to camera work with negative plates; but if you make it by contact, as, no doubt, you often make your lantern slides, you may possibly forget, and considerably overexpose.

I have known many good workers who have fallen into this error, and have given ten seconds' exposure when one second would have been ample. When the transparency has been made, and is quite dry, we must provide it with a safe-edge. Cut some strips of red or black paper about half an inch wide—if you have lantern-slide binders they will do as well. Stick these round the portion of the transparency you intend to use. Now carefully measure one-eighth of an inch all round the edge of the subject, and make a rectangular mark at each corner. These marks

will be your guide when you place your carbon tissue in position for printing—it must fit the corners exactly. By this means you will have an even margin all round your print, and will be able to place it in its proper position on the copper plate without any trouble.

Graining the Copper Plate.

Printing is really the next stage of the process, but I have selected graining the plate for the second stage. I have done so because the grained plate will remain unaltered for an indefinite period if carefully kept, while the carbon resist would not keep; and as we must have our plates ready to receive the print when made, there is no harm but a distinct advantage in having it prepared beforehand.

The processes of printing and graining can, in actual practice, be carried on at the same time, but cannot be explained together; and so, to prevent you making a print that you could not use, I have placed the third stage second. We now come to the most expensive part of the process, viz., the copper plates; though these are not so very costly. Plain copper plates, 6½ x 8½, cost about $1.00, or, if bevelled, about 100 per cent. more. Though I personally bevel my own plates, I suggest that it will be better for the beginner to purchase one already bevelled, and though he may have to pay from $1.50 to $2.00, or, perhaps more, for a single plate, it will not work out very expensive, as, if he fails in obtaining a successful result at his first trial, I hope to show him how he can prepare his plate for use again.

In addition to the plates, we shall want some powdered resin or bitumen, and the finer the powder the better; a box for use as a dusting box—a Quaker Oats box will answer admirably; a gridiron, and a Bunsen burner or a spirit lamp.

There are special forms of dusting boxes generally used, but as we are only experimenting, and do not wish to run to too much expense, we will make shift with the Quaker Oats box.

Our first care must be to make it dust-proof, and this we will do by carefully pasting stout brown paper all over the inside. This will not only make the box dust-tight, but will also prevent the powder clinging to the rough wood, and which would almost be sure to drop upon the plate, and spoil the grain.

We must next prepare the front of the box, which, by the way, we shall use in a vertical position. The original lid ran the length of the box; we must alter this and make it go across.

First of all, nail a piece of wood, about six inches wide, across the bottom, next take another piece, and fit it nicely over the first; but do not nail it, as we shall want that for our door. Now fill up and fasten on the remainder of the front, and our dusting-box is complete. We may put a couple of hinges on the bottom of our door, so that it drops down when we open it, and fasten it with a button at the top if we like; or we may fasten it with nails driven into the wood above and below it, and bend them over. In any case, the door must fit nicely, but at the same time open easily.

We may now put in the dusting powder, and, having fastened up the door, give the box a good shaking, the idea being to raise as much dust inside as possible. When the shaking has been considered sufficient, put down the box with a slight bang upon the floor. This banging down loosens the particles of powder clinging to the top and sides of the box.

Now take a plate-box lid, and on the top put the copper plate; open the door, and then carefully place it in the box as near the centre as you can guess at the moment, and then, as carefully, shut the door.

While our plate is getting its grain we

will consider the quality of the grain—whether it will be coarse or fine.

Powders vary in quality of fineness, and even a very fine powder will vary in itself, having some particles coarser than the others.

Now, after the box has been shaken and stood down, we may naturally expect that the coarser particles, being heavier, will fall to the bottom of the box first, and the lighter particles remain in suspension longer. The time will, of course, vary with the fineness of the powder, and can only be found out by experiment. The lesson we learn, however, is this: If we want a coarse grain, we put in our plate almost immediately the box comes to rest. If, on the other hand, we desire a fine one, it is as well to wait a little while. It is perhaps as well to say at once that a fine grain is, in the majority of cases, best.

We must also remember that it takes a longer time for a fine grain to be deposited, and if the first application has not been sufficient, the operation must be repeated. We will assume that our plate has now been in the box for a quarter of an hour.

Carefully opening the door, we lift out the plate-box lid, and, holding it up to the light, glance across the plate. It should have the appearance of finely ground glass, that is, so far as appearance is concerned; the color will vary with the powder used. It is probable that the first dusting will be successful; it is seldom necessary to repeat the operation, and a thick coating is not desirable.

Now, take the plate carefully by the edges, and place it on the gridiron, and then hold it over the flame of the Bunsen or the spirit lamp, moving it all the time.

Great care must be taken to see that the grain does not run; it merely wants melting just sufficiently to make it stop on the plate. The plate must only be warmed. If resin is used, the change will be noted by seeing the resin change from a dull to a bright color when the plate is looked across.

If bitumen is used the change will be to a beautiful plum-colored bloom.

Immediately either of these changes takes place the plate is taken off the grid and put on a cool slab for a few minutes. It is then put away in a place free from dust until required for the next process.

Preparing the Resist.

The first thing to obtain is some carbon tissue. This may be bought either sensitive or insensitive, and the price is the same in both instances. If the reader buys his tissue sensitized it saves him the trouble of sensitizing the paper himself; but against this is the fact that the tissue will not keep in a sensitive condition for a long period, but the gelatine will, after fourteen or fifteen days, become insoluble, and the tissue will thus be rendered useless. On the other hand, if the reader sensitizes the tissue himself he may do so as he requires it, and he can then be sure of it always being fresh. But as this involves another operation, the reader must decide for himself whether he will undertake it or not.

I will assume that he has bought a packet of carbon tissue—red for preference—and that it is insensitive. Get 1 ounce of bichromate of potash and dissolve it in 20 ounces of hot water. When cool pour it into a deep dish, and taking a piece of the tissue, slide it under the solution, face upward. Notice the time, and then turn the paper over, and remove any air bells which may be on the back. Turn the paper over again, and see that no air bells remain on the front. At the end of a minute remove the paper from the solution, and laying it down on a piece of clean plate glass, or a ferrotype plate,

give it one or two strokes with a squeegee, and put it in a warm, dark place to dry. Do as many pieces of the tissue as you are likely to want for a week. When dry the tissue is removed from the support, and will come away nice and flat and with a beautiful polish. The pieces we are not going to use at the moment had better be kept under pressure. Now take a piece of the sensitized tissue and cut it to exactly fit the marks we made on the mask of our transparency, and then put into a printing frame in the usual way. Expose with the aid of an actinometer, or by means of a piece of P.O.P. placed under a negative of similar density.

As the tissue will be of about the same rapidity as the P.O.P., we shall know when the print is printed just deep enough, as we should like to see it in the *finished print*, that the tissue has had sufficient exposure. Do not print too deeply.

We shall now want our grained plate. Remove the tissue from the printing frame, and put both plate and tissue into a dish of cold water. The tissue will at first curl up and then begin to flatten out again. When this takes place be ready with your squeegee, and when the tissue is nearly, but not quite, flat place it in position on the copper plate, lift the two out of the water together, and squeegee the tissue down; then place between blotting boards and under pressure for a few minutes.

We now turn our attention to the preparation of the developing bath. We shall want a fairly large, deep dish, a thermometer, and a good supply of hot water. Half fill the dish with hot water and test its temperature; we shall want it to be 100° F. We now take the plate, with the tissue adhering, and slip it beneath the hot water, carefully removing any air bells that may form, either with the finger or a camel's-hair brush.

If the exposure has been correct, we shall presently notice that the pigmented gelatine begins to ooze out around the edges of the tissue. Let this continue for a minute or two, and then, placing the thumb and forefinger on the diagonal corners of the plate to prevent it shifting, carefully lift up one corner of the paper and very gradually pull it off, as though you were skinning the plate. The paper should come off easily, but if it does not you must add a little more hot water and raise the temperature. You can safely go to 120° F., or even more, but you must not use force in stripping the paper or you will tear the film. Assuming that the paper has been successfully removed, we shall find that we have what resembles a patch of colored mud upon the plate.

We now remove the plate and place it on a sheet of glass, which has one end resting on the edge of the dish and the other on the bottom. Now gently lave the plate with hot water, and presently the image will begin to appear. Continue the laving until no more pigment can be washed out, give a final wash in clean water, and development is complete. Now stand the plate on edge on a piece of blotting-paper in a place which is free from dust, and which has an even temperature, and let it dry; it will then be ready for etching.

If a slight error has been made in the exposure of the tissue it can be remedied to a considerable extent in the development. Should the gelatine show signs of melting too easily in the water at 100°, it shows that the tissue has been underexposed, and the temperature must at once be lowered by adding a little cold water. Should it, on the other hand, not melt easily, it is a sign of overexposure, and the temperature must be raised accordingly. The process is simple, and unless exposure is very faulty indeed a passable result is easily obtained.

Etching the Plate.

When the carbon resist is thoroughly dry we may prepare the plate for etching. We shall want some Brunswick black, some bordering wax, perchloride of iron, 40° Beaumé; a cup of water, a spoon, an egg-cup, a ruling-pen, a small camel's-hair brush, some potash, and a nail-brush.

The first thing to do is to block out all that we do not require on the plate. Open the ruling-pen to give a good wide mark, then dip the brush in the Brunswick black, and apply it to the pen. Before attempting to work on the subject test the pen first on the margin of the plate to see if the black runs easily, and if it does not, adjust it until it does. When it makes a good even mark satisfactorily, take a ruler and, placing it on the edge of the resist, draw a straight line along the edge of the subject, taking care that you come on to the print, otherwise you will etch a line round your subject, which would probably spoil it. Now treat the other three sides in the same way, and you will have your subject enclosed within the four black lines. Next take the brush, and, working carefully up to the lines, fill up the rest of the margin of the plate with the Brunswick black. This will eventually prevent the perchloride of iron attacking it, and you will retain a clean margin.

I have suggested the use of bordering wax, and this can be procured when purchasing the plates and perchloride of iron. If you decide to do without it, and intend to etch your plate in a dish, you will have to paint the back of the plate so that it may be protected. I mention this, as some workers prefer this latter method.

The bordering wax method is, however, quite as easy, cleaner, and the etching is more under control, as the plate forms its own dish. The bordering wax is generally sold in strips of convenient length. Place enough of these strips to go around the plate in warm water to soften. When the Brunswick black on the plate is dry, and the strips of wax are soft enough to be workable, take them from the water and, carefully avoiding splashes on the resist, build a ridge of wax about half an inch high around the margin of the plate. It is not necessary to build right up to the subject; in fact, it is better not to. Care must be taken to see that the ridge is perfect, with no leaks in it. A little spout at one corner, made by pressing the thumb there, will be useful when pouring off the etching fluid, and as this takes place several times during the process of etching, the advantage will at once be seen.

It has just occurred to me that if any difficulty is experienced in procuring the proper bordering wax, Plasticine, the much advertised modelling clay, might be a successful substitute. I have not tried it myself, but it suggested itself to me as possible.

When the ridge is built to your satisfaction, pour into the egg cup about half an ounce of the perchloride of iron. Have at hand a cup of water—not too cold—and a teaspoon. Pour the perchloride onto the plate, and rock it about a little, so that it shall completely cover the image, just the same as you would do in development.

Now carefully watch the action of the etching fluid. You will find that it attacks the shadows first, that is, those parts which have the least resist covering them.

There is one peculiar thing about perchloride of iron that makes it necessary to watch its action closely. It is that in its strong state it will not readily attack those parts of the plate which have a thick resist, such as the sky, faces, and high lights generally; but when it is diluted it will do so quite easily.

With the red tissue which I recommended it is quite easy to watch the progress of the etching, as the parts which are acted upon show up a dark brown or black against the red, and you can at once tell when the action of a certain strength of fluid has ceased.

You may get the three deepest shadows probably at the first etch. When the action—which will be fairly rapid—has ceased, do not prolong the etching, but, putting a few drops of water into the egg cup, pour the fluid off the plate into it, swill around, and return it to the plate. The next lowest tones wil now be attacked, while those already commenced will have their depth increased.

Directly the action again stops, repeat the operation. A few more drops of water, pour off solution, swill round, and return again. By this means you will notice that you build up the tones in steps, as it were, and the more gradual the dilution the greater the range of tones.

This process must be carried on until you notice that the high lights have been attacked, which will probably be during the fourth or fifth dilution, if you have not carried the different etches too far.

Directly the highest light is attacked watch for the part to be slightly changed, and immediately this happens pour off the fluid and give the plate a good wash under the tap. Do not touch the film for the moment, but look and see if you think the etching is satisfactory. If it is, you can wash off the film with a little of the potash, which has previously been dissolved in warm water, and scrub the plate clean with the nail-brush. If it has not been satisfactory, however, you may drain as much water off the plate as you can, and then etch for a little longer.

There is one thing that it is as well to remember: There is no necessity for the image to be deep—it should be merely roughened, as it were; too much depth is not advisable, and might lead to unsatisfactory results.

Now just a word of warning. The plate will most probably present a far different appearance to that which you expected, and you may possibly be disappointed when you see it in its nakedness and free from the resist. This matter will be set right when you come to finish the plate.

(To be concluded in our next.)

A positive supplementary lens reduces the focal length, a negative lens increases it.

A narrow-angle lens is preferable to a wide-angle when minute detail has to be rendered.

Flare spot is caused by light reflected from the lens as distinguished from light refracted from the lens.

The focal aperture of stops is obtained by dividing the focal length of lens by the diameter of the aperture.

The increase in exposure with decrease of the size of stop is found by squaring and comparing the *f* numbers.

The value of a good view lens can be increased for the purposes of portraiture by opening out the full aperture.

The further away the stop is from a single lens (within limits) the flatter will be the field and the better the definition.

The best position for the stop with a single lens is one-fifth of the focal length in front of the concave or flat side of the lens.

"Depth of focus" is the distance the ground glass can be moved to and fro without any single object becoming visibly unsharp.

In using uncorrected lenses, *i. e.*, spectacle lenses, in order to compensate for chromatic aberration, it is necessary to move the lens toward the plate (after focussing) one-fortieth of its focal length.

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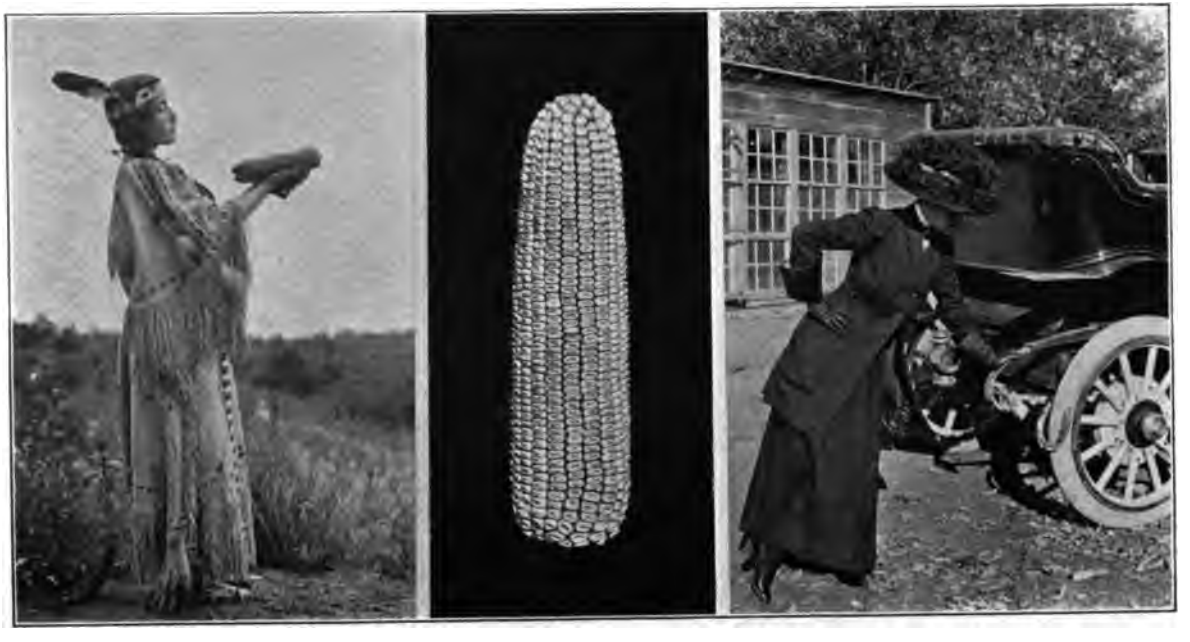

For the Advertiser

By Louis R. Bostwick, Omaha, Neb.

Illustrating Article on Show Cases

1. Lady with Fan
2. Miss Siddal
3. Lucrezia Borgia
4. Mrs. and Miss Christina Rossetti

Illustrating Sidney Allan's Article

5. Robert Swinburne
6. Ford Madox Brown
7. Mrs. William Morris
8. Study

Illustrating Sidney Allan's Article

9. La Donna della Finestra
10. Fair Rosamond
11. Sweetheart
12. Study for the Blessed Damozel

Illustrating Sidney Allan's Article

MASTERS IN PORTRAITURE--DANTE GABRIEL ROSSETTI.

BY SIDNEY ALLAN.

It would be difficult to classify Rossetti as a portrait painter. He made no specialty of it. But, like all painters, he made a few excellent portraits, and as he excelled in a branch of painting that is very closely related to portraiture, his best work really being done in ideal and fancy heads, he is entitled to a place in this series.

Rossetti is a very individual painter. He really created a style of his own, and in a way was the originator and chief representative of that remarkable group of artists, the pre-Raphaelites. It is claimed that these painters went back to the *quatro cento*, the forerunners of Raphael, for inspiration. This is no doubt true; but I see just as much of the Venetian School in Rossetti's work—a sensuous, virile element that was foreign to the Primitifs; and, besides, there is a decided modern note in all his character delineations.

Who else but a modern man could have drawn the portrait of Miss Siddel (Fig. 2)? Only in the severity of lines in the dress do we notice the influence of the earlier masters. This composition is exquisite in its simplicity. It is radiant with sentiment, subdued sentiment, that does not say too much, but merely indicates its presence. No wonder, as Miss Siddel was not merely his favorite model, and later on his wife, but the principal source of inspiration of his art. Her face reappears again and again on his canvases. We see it in his Lady Guinevere, Beatrice, Joan of Arc, Francesca, and the Blessed Demozel.

It is a peculiar type of beauty, that may and may not arouse enthusiasm in the casual beholder. But beauty cannot be analyzed. What may seem beautiful to one painter may leave another entirely indifferent. It is largely a personal matter of likes and dislikes. It is generally not the type of perfect beauty which interests the artist, but a face which is capable of suggesting beauty in many different expressions and attitudes. Fig. 2 was meant for a portrait. We see different versions of the same face in Figs. 9, 10, 11, and 12. The reader can judge for himself whether the painter has done justice to her. As Goldensky has said, it is extremely difficult to portray a person with which we are closely associated. There are too many moods and favorable moments and attitudes, and it becomes a serious problem to select the most characteristic and typical one. To me, Fig. 2 suggests a good deal of character, but I might be of a different opinion if I had known the lady personally.

Fig. 1, the "Lady with Fan," is a typical Rossetti. It could easily pass as a portrait. The composition is excellent. The figure, rather large for the allotted space, fills it exceedingly well. This is one of the characteristics of Rossetti, to shift the head very near to the upper margin (viz., Figs. 9 and 10). Also in Figs. 2 and 3 the figure almost fills the entire picture. This lends to the composition a certain sense of largeness, of opulence in the gown and accessories, particularly if they are handled with a view to pictorial effect, as in Fig. 1. Notice how the light strikes the bodice, while the remainder of the picture is treated in middle tints, reserving the deepest blacks for parts of the background and the lower part of the composition. The hands, despite the play of light on them, I fear are a little

dark. The line of the hair, shoulder, and sleeve is effective and dominates the whole composition. The detail of the head is balanced by the hands and fan, leaving the space between comparatively empty.

Fig. 3 is noteworthy for its textural effect. If gowns in photographic portraiture could be handled in such a soft, luminous manner, much would be gained. The present gewgaw style, showing every detail with obtrusive harshness, without any beauty of line or light effect, is intolerable.

In Fig. 4 we have two heads (almost profile views) on the same level. This would hardly be beautiful if the inclinations of the heads were not slightly different. Besides, there is a slight attempt at a color effect, by introducing the old lady's cap. The ribbons permit the picturesque feature. Also noteworthy is the way in which the heads have been placed. They are very near to the left margin, leaving the right side rather bald. But this helps the composition. The faces are beautifully drawn and well lighted.

The portrait of Robert Swinburne (Fig. 6) is remarkable for its unusual size. There is almost no background. Day, Coburn, Eugene have lately introduced this style of composition into pictorial portraiture. It naturally gives importance to the face, and as the face is the principal thing in a portrait, no fault can be found with the method. And yet it looks a trifle clumsy, particularly if so little of the bust is shown.

How much more pleasant to look at is Fig. 8. The head is large even there, but there is a lot of space around it, and I believe that, after all, concentration of purpose is shown in such a composition better than in one like Fig. 6. In Fig. 7 the eyes go immediately to the centre, while Fig. 6 is so bulky in its masses that we are startled. We do not quite understand the reason of such an arrangement. Of course, it is simple. There is a chance only for the display of light planes. But is this really simplicity? Surely not simplicity of effect, as a picture that startles us at the first glance cannot produce as harmonious an effect as one that is pleasant to look at from the start.

Fig. 5 represents a very ordinary composition. Only the placing of the head is recommendable.

"Mrs. William Morris" (Fig. 7) is one of the few finished portraits of Rossetti's. The pose is a graceful one and suitable for home portraiture. It really looks very much like an ideal figure composition.

The arrangement is one of dark tones, with a few bright spots. The highest light seems to be on the cuff. The hands and face form an indefinite but rather large plane. This is balanced by the book and flowers. The white spots make a V shape. They would be too decided if they were not complemented by the shimmer on the dress. Remarkable is the way in which the outline of the figure, although plainly visible, is lost against the background. As a dark figure against a dark background it is a masterpiece.

In Figs. 9, 10, 11, 12 we have four beautiful versions of the Rossetti type. It is always the same face—the long oval encased in dark waves of hair; the sensuous, full mouth; the rather large but delicate nose, and the dreamy eyes of classic shape.

Rossetti but rarely drew a three-quarter view without showing the head at a decided angle of at least sixty degrees. This always helps toward a picturesque effect. It looks too sentimental for straight portraiture, but goes well with ideal heads.

In Fig. 10, "Fair Rosamund," we have a decorative innovation. The bust is shown as if looking over a balustrade. This is a trifle oddlooking, but produces

a beautiful effect. The leaning attitude is charming. But I fear it could only be done with plenty of picturesque accessories, or a variety of small spots of interest, as the hair, necklace, the bodice, the fingers, and flower branch. Also, the background in such a composition could hardly be a plain, but had to show, as in this instance, some decided shapes.

The same style of composition, of leaving a comparatively unimportant space along the lower margin, can be studied in Figs. 9 and 12. It necessitates a higher position of the head and more careful treatment of the bust. The pose in Fig. 9 is a very simple one, and could be imitated in portraiture. The picturesque effect is largely obtained by the hair, the loose drapery, and principally the background.

The study for "The Blessed Demozel" (Fig. 12) is a fine example of a dark face against a light background. The pose, particularly of the hands, is even more natural than that of Fig. 9.

Fig. 11 is a pleasing picture, but less characteristic of Rossetti than any of the other illustrations. It is almost too pretty. The triangular shape against the background (or, rather, what is left of the background), the way the lighted planes are shown at a right angle, and how the lines of the braiding help the position of the hands, are object lessons in composition that apply to portraiture as well as to ideal heads.

There is much to learn from these paintings, principally in the placing of the head and the handling of backgrounds and accessories. Many of the finer qualities are unsuitable to portraiture, but they point out the difference between ideal and ordinary figure composition. The lesson may be indirect, but no doubt will prove equally effective.

It was impossible to get the necessary illustrations for the John W. Alexander article, which we intended to publish in this number. It will be published in some future issue. The next number will be devoted to James McNeil Whistler.

MONEY FROM OLD NEGATIVES.

BY GRACE C. RUTTER.

Other Ways of Making Money in Photography.

Unless one has too much idle time, and is thus forced to make resources, he seldom learns these "other ways," and, indeed, has no need to. It is not for this class of photographer this article is written, but to help him who needs all the cash his spare time lacks.

From any group of persons—school children, wedding party, flashlight ballroom scene, or any other negative you already have—mask out the most promising, and enlarge singly to print on postcards and sell to the originals.

This brings me to say that every photographer should buy an enlarging lens. The price is so small compared to its possibilities of moneymaking, and it is so easy to use, all directions being furnished. They come now to fit every camera.

From an ordinary group one figure can be enlarged to appropriate size for a postcard and printed under a mask. You can afford to sell these at about half the price of regular gallery work,

and herein lies much of their selling qualities; or, if some fellow and his best girl are in the same group, or even in different ones, they may be glad to be printed together for double the price of a single picture. If you have each on a large negative, you can reduce them by the use of the enlarging and copying lens and print them together on a postcard.

You must be on hand always to get a shot at every parade, church or hall decoration, political meeting, wedding party, etc., if necessary, by flashlight. Care is necessary in using the latter that no decorations or thin dresses catch fire; but never whisper danger—scared people do not look well—simply keep cool yourself and do the work carefully.

I think group pictures pay better, as people do not expect such particular work as in single portraits, and your labor is less, while every person in the group wants at least one copy.

If you have done landscape work, you probably have on hand negatives in which portions of streets appear, giving views of residences. Where you have a good view of any home and grounds, mask it out, enlarge once or twice, and print on postcards to sell to the owner. You can afford to sell these cheaper than where you have to make a special trip to take a place.

One novel way I found of using an old negative was this: I took a picture of Mr. and Mrs. P.'s home, with them in it. Later, they sold to Mr. and Mrs. M., who wanted some views, but objected to the one containing the former owners. I printed in a tree which covered Mr. and Mrs. P., and now Mrs. M. is delighted with the view, but wonders why such a pretty tree was cut down. There are tricks in every trade!

ON ESTIMATING THE VALUE OF RESIDUES.

In a recent article we drew attention to the very altered conditions which prevail nowadays as to the utilization of used fixing and toning baths for the recovery of the silver contained in them. Not only are the modern papers less extravagant on silver, but less care is now taken to remove anything which does not contain at least some of the precious metal. In some instances the complaints that have reached us have been grounded solely upon the fact that so many pounds of stuff was sent to the refiner, and only so much received for it. We happened to be in a refinery some time ago when operations were going on, and were shown a collection of things that had been separated, by sifting, from about three or four pounds of wastes sent by a provincial photographer. It was, indeed, a miscellaneous collection, consisting of broken glass, tin tacks, drawing pins, nails, broken printing frame springs, stoppers of bottles, etc. Roughly, we should say, this heterogeneous lot did not weigh much less than half a pound. Although this formed part of the weight sent, it is obvious that no silver could be got from it. In many instances it would be

more satisfactory to the photographer if, before despatching the wastes to the refiner, he were to ascertain for himself, at least approximately, the silver they contain; and the means of doing this is the subject of the present notes.

In the first place, the residues—there is no advantage in keeping the different kinds separate—must be reduced to the smallest possible bulk by burning and drying. Next, all lumps of chloride and sulphide should be reduced to powder in a mortar. The whole is then sifted through a coarse sieve to remove all extraneous matters. The powder is then very intimately mixed; for it goes without saying that unless that is done very completely nothing like a reliable estimate can be formed. Premising that the whole bulk of the stuff has been made uniform throughout, we shall now proceed to deal with it.

For the nonce we will assume that the photographer is tolerably familiar with blow-pipe manipulation. Ten or 15 grains of the residue is carefully weighed out and intimately mixed with an equal weight of a mixture of equal parts of carbonate of soda and carbonate of potash. The mixture is then put into a small hole scooped out in a stick of charcoal, and subjected to the reducing flame of the blowpipe for a few minutes, or until a bright shining bead of metal is obtained. From the weight of this bead, by the rule of proportion, the quantity of metal in the bulk can be arrived at. When dealing with so small a quantity as that just mentioned, it is a good plan to treat several lots in the same way, and then take the mean of them for the estimation. Although we have given the above method, it is not to be recommended to a novice in blowpipe work, for, should a grain or two of the residue be lost, it would, of course, mean a misleading result.

On the whole, it will be better for the photographer to make his assay in a less delicate way by working on a larger scale. For this a reducing furnace or other source of strong heat is necessary. If a proper furnace is not at command, one that will answer our present purpose may be extemporized from an ordinary fire grate, by covering up the whole of the front of the stove up to the chimney with thin sheet iron, so that the only draught to the chimney is through the bottom of the grate. In this way, an intense heat can be obtained. Many of the closed stoves used for heating the studio may be made to answer the purpose, or even the domestic kitchener. This latter, on the whole, will, perhaps, be the most convenient to use, as, with its dampers, the heat can be brought under fairly good control, and no doubt any objections to its use by the household can easily be overcome.

Supposing the stove to be brought into requisition, all we have to do is to cover up the space below the front door to the bottom bar of the fireplace with a piece of thin sheet-iron, so that all the air that reaches the flues passes through the bottom of the fire. Our extemporized furnace being prepared, next comes the fuel. The best to use is what is known as furnace coke, but as that is not always easily obtainable, ordinary gas coke may be used, as we are only going to deal with a small quantity of the residue; but the largest and more solid lumps of the coke should be picked out and broken up into pieces about the size of a small hen's egg. The fire, supposing it to be already burning, is permitted to fall low; then all the ashes are raked out from the bottom, and some of the broken up coke put in so as to fill up to about three or four inches from the bottom. A given quantity of the residue—say 200 grains—is then carefully weighed out and intimately mixed with the same weight of carbonate of potash, and a similar quantity of bicarbonate of soda. This may be done on a sheet of paper,

with a spatula or table knife. It is then put into a small clay crucible—a "No. 3 skittle pot" will be a convenient size for our present purpose. Care must, of course, be taken that none of the mixture is lost, and to insure that the paper on which the mixture was made should also be put into the pot. This is now put on the coke, and surrounded up to the top of the fire space with more coke. The lid of the range is now put on, and the dampers pulled out to the full extent. As the heat increases the contents of the crucible will liquefy, and afterward begin to boil. When boiling begins the dampers should be slightly closed to check the draught a little, for the pot must on no account be allowed to boil over, or some of the contents would be lost; but the boiling must be continued as vigorously as possible without risk. If, when boiling, the mass seems pasty and not liquid while the heat is maintained, a small piece or two of nitrate of potash (saltpetre), the size of a pea, may be dropped in; that will liquefy it considerably. Care, however, must be taken to add this cautiously, as violent deflagration will take place. After a time, the heat being kept up, the contents of the pot will become quiescent, and have a somewhat rotary motion. Then the heat should, if possible, be further increased and continued for another fifteen or twenty minutes, so as to insure complete reduction. Toward the end of that time a few small pieces of borax may be dropped in, which will facilitate the metal collecting in one compact lump. The dampers of the range are now closed, and the whole allowed to cool down. Then the crucible is lifted out with tongs on to the hob, and left until it is fairly cool. It is then broken, and, if the reduction has been complete, the metal will be found at the bottom as a clean bright button. From the weight of that, by the rule of proportion, the metal contained in the bulk of the residue is arrived at. If, when the pot is broken, the metal, instead of being a solid bright button, is in a honeycomb-like state, it shows that the heat was not sufficiently intense, or that it was not continued long enough. In either case the mass, together with the flux, must be put into another crucible and more of the mixed carbonates added, when the work must be gone through again with a stronger heat.

It must not be taken for granted that the metal obtained from photographic residues is pure silver, for it may be more or less contaminated with other metals. But this is unlikely to be the case to any great extent.—*British Journal of Photography.*

METHODS OF BLACKENING APPARATUS.

It is said that a good workman can be known by the state of his tools, and it is equally true to say that the business-like photographer can be known by the care with which he preserves the blackened parts of his apparatus, remarks a writer in *Photo Notes.* The virtues of dead black are well known to all, but, unfortunately, its virtue is not permanent, and while some varieties chip away, others turn gray, and yet others develop a bright polish. It is therefore necessary for the photographer to be able to re-black his apparatus at times, and some simple methods of blackening wood and brass should always be available. Numberless methods are possible, but we shall mention only those that we use ourselves, and that have proved to be quite

simple and satisfactory. We can, of course, use varnishes, stains, or chemical methods, but the latter are generally unsatisfactory, excepting in the case of brass, and we shall give only one of these.

To Blacken Brass.

Prepare an acid solution of copper nitrate, either by dissolving the salt copper nitrate in water and then adding nitric acid, or by dissolving copper wire in nitric acid. Either method will do equally well. If the salt is used, dissolve 1 ounce in 5 ounces of water, and add a few drops, say up to ½ dram, of nitric acid. If the wire is more convenient, add one part of nitric acid to four of water, and add copper wire cut up into short pieces until the solution will dissolve no more. The copper solution will keep indefinitely, and should be kept always handy. Its exact strength is immaterial, and the first solution given may be twice as strong, if preferred. To use the solution, first clean the brass, then hang it on a piece of copper wire to serve as a holder. Make the brass red hot in a clean flame, such as that of a Bunsen, or spirit lamp, or gas boiling stove, and when hot dip it in the copper solution, standing clear of any splutterings that may fly out when the hot metal touches the solution. Lift out the metal, shake off any hanging drops of solution, and then re-heat *over* the flame, not in it. The article will turn a bright green color, which will change to a dull black as the heating is continued. When black, put it in the flame until it is again red hot, then plunge into the solution once more. Take out and shake as before and re-heat until the black stage is reached a second time, then put aside to cool. The brass will now be found to be covered with a fine dead black powder, which should be brushed off with an old soft brush—a toothbrush is excellent for the purpose. Touch a cake of black lead very lightly with the brush and keep up the brushing of the brass until a dull uniform black coating is left. If the brass is an outside piece and a good appearance is wanted, a very minute touch of oil in the brush will give a better finish. In any case, the result is not absolutely dead black, but it is black enough for most purposes, and a real dead black is a thing quite impossible to retain on metal that is subjected to friction. For a lens stop or a shutter plate the effect is as good as can be wished for, if we omit the oiling process, while for camera screws, lens flanges, and outside brass work, the final rub up with an oily brush gives an effect as good as that generally produced by the practised metal finisher. There is no trouble whatever in the process, and the only "secret of success" is the careful cleaning of the brass in the first instance. There must be no lacquer or varnish on it, and, of course, no grease. The method described is a favorite one with many brassworkers, and the additional use of silver solution, though often recommended, is quite unnecessary.

Black Varnish.

For general use we can have no better varnish than one the medium of which is celluloid solution. Clean some old celluloid films, cut them up into small pieces, and put these into a bottle containing some amyl acetate. They will dissolve very quickly, and enough celluloid should be added to produce a thick syrup of about the consistency of molasses. This syrup will serve to form the basis of many useful varnishes, and, as it improves with keeping, a good quantity should be prepared and kept always handy. When required for use, we simply dilute until it is of a convenient consistency for application, and then add lamp black. This latter ingredient

should not be obtained from the oil shop, but from the artists' color merchant. It is very cheap, and a quarter of a pound of it will be enough for several years' occasional use.

Dead Black Varnish.

To make a dead black varnish, take a little of the celluloid syrup and dilute it with acetone until it is of a convenient consistency for application with a camel's hair brush. Then add lampblack until the mixture gives a perfect black when applied with the brush to a piece of smooth wood or metal. It must, of course, be stirred well to produce a perfect mixture. If it becomes too stiff for use, dilute with a little more acetone and add a few drops of the syrup. The varnish should be applied with a soft brush, and it is generally best to give a second coat after the first one is dry. The result on either wood or metal is a fine dead black, but rubbing will tend to make it shiny. This defect is, however, common to all varieties of dead black varnish, and there is no method of preventing it.

Black Finish.

When a dead black is not required, but only a black finish for outside woodwork or metal, make up the varnish just as already described, but using amyl acetate instead of acetone for dilution purposes. Give at least two coats, allowing the first to dry before the second is applied, and then rub well with a bit of felt. This gives a semi-glossy finish, which is excellent for apparatus which is simply desired to be inconspicuous in appearance, while a high gloss can easily be secured by French polishing over the black. The celluloid syrup can, of course, also be used for making clear varnishes for negatives, etc. Diluted with rectified spirit or amyl acetate, it makes an excellent varnish for all purposes, and is particularly useful for bromide prints, as it produces no gloss. For use with screen plates, such as the Autochrome, it must be diluted with amyl acetate alone, not with alcohol, and it then forms the best varnish available for such plates.

Substitute for Matt Varnish. If a little pencil work is needed on the glass side of a negative, and matt varnish is not available at the moment, there is an excellent substitute in ordinary paste, or in "Higgins" for those who use that admirable preparation. It can be applied with a stiff brush, so as to form a fairly even coating, dried quickly in front of the fire, and will then take a pencil or stump quite freely, while by removing it with a knife parts may be made to print darker. It has one drawback—it will not take a wash of water color; but in all other respects it is a very fair substitute.

Painting Photographs. The following suggestions for painting or tinting photographs were made recently in the *Photo-Revue.* Chalks may be used for tinting P.O.P. or bromide prints, if the paper, when glossy, is first given a slight tooth by rubbing it with finely sifted pumice or cuttlefish powder. If they are to be painted in oils, all prints should first be sized with a warm 3 per cent. solution of gelatine. Prints that are to be tinted with water color may have the following applied to them by means of a spray diffuser: White shellac, quarter of an ounce, dissolved in an ounce of warm alcohol. It is allowed to stand for forty-eight hours, and is then filtered and another ounce of alcohol added.

THE RIGHTS OF THE SITTER IN NEW YORK.

THE photographers in the State of New York are suffering from too much legislation. By a recent enactment they are prohibited, under severe penalties, from using, for any purpose whatever, photographs of their sitters. Such a strict regard for the sitter works an injustice on the photographer, and the slightest slip on his part is apt to put him at the mercy of an unscrupulous lawyer. The Professional Photographers' Society has been trying to get an Amendment to the law, but, from the tone of the following interview granted by the Governor to Mr. Bliss, there would seem to be small chance of its success while Governor Hughes holds sway at Albany:

"I began by stating my mission, which was to see if we could not arrive at some conclusion whereby the photographers of this State could have the privilege of exhibiting their work as example of their skill as workmen. The Governor said we had that privilege now. I told him that we could not exhibit portraits except to do so unlawfully, without having written permission. This for many reasons is about impossible to secure.

"The Governor replied that photographers 'have no right to place a portrait on exhibition without permission. You deprive the people of the right to say what shall be done with their pictures. I think it is un-American, and I believe that nine-tenths of the people would sign slips, giving you permission to use their portraits. If I went to a lawyer for professional advice, I certainly would expect it to be confidential; if I went to a photographer, he should have no right to put my picture on exhibition without my consent. You are putting the boot on the other foot, for you wish to put it up to the people to find their portraits on exhibition, and possibly it might be used by you for that purpose for an indefinite period before it would be discovered by them. They should have the right to say what should be done with their portraits. Speaking personally, I would, as a public man, not object to having my portrait on exhibition; but you can rest assured that if I took my baby to a photographer and he used her portrait for that purpose, I certainly would resent his entering into the boundary of my home by placing it on public exhibition. If I go to a tailor, he don't show me a suit of clothes made up as worn by Mr. So and So.'

"I replied to this that the tailor has his fashion plates and samples of cloth, otherwise he would be unable to secure your order; and that portrait samples are the method employed by us in showing styles, and if deprived of that privilege it would be a hardship.

"Nevertheless, the Governor could not be convinced that the present law is a hardship to photographers. While admitting that the law might reduce the number of samples of prominent people for exhibition purposes, he said there would be plenty who would consent to give written permission, so that enough samples for the purpose would be obtainable. 'No doubt,' he said, 'you have found people who requested you to place their pictures on exhibition. Some people are proud of their frontal-piece you know.'

"I then stated that I did not know of an instance where a photographer had done an injustice to a customer by exhibiting a portrait against that customer's wish; that photographers depend principally upon their patrons' recom-

mendation and samples of their skill displayed in their establishment; that it has always been the custom, from the time the first picture was made, to exhibit photographs, and people know that fact when they come to a studio to have pictures made. I assured the Governor that we could not obtain written permission from one customer in ten.

"'I should say right here,' the Governor replied, 'that the people have the right to refuse you, and it would be un-American if they had not.'

"The reply to this was that often our customers scatter, and on that account we are unable to secure permission.

"'That is simply a matter of prearranged business,' he replied, 'and is something that you will have to attend to at the time they have the pictures taken.'

"We believe also, Governor, that the law is unjust, because it was never intended to apply to photographers, but was aimed at a corporation using the picture of a young lady on their flour bags.

"'That is true,' he said, 'but I believe the law is a just one.'

"In your veto message you suggested making a change in the penalty clause, if necessary. What change would you suggest?

"'Not any. If you have the slips signed, that will guard against action being brought by individuals for the purpose of securing the penalty. In regard to making an amendment to the present law, if you have anything to suggest along the lines we have talked over, whereby the people will have the right to say what shall be done with their portraits, write me, and I will be glad to advise with you.'

"This closed a very pleasant interview with Governor Hughes in regard to having an amendment to the present law passed at the present session of the Legislature. I believe that it is the duty of every photographer to uphold the laws of his State. Therefore we must provide some method which will permit us to exhibit portraits lawfully."

THE INFLUENCE OF PAINTING UPON PHOTOGRAPHY.*

In considering very briefly the ample subject I have had the temerity to place upon our syllabus, I propose to confine my remarks to what is broadly termed pictorial photography, in opposition to photography as applied to science and recording, and we will not presume to consider the question of the comparative value or position of these two broad divisions beyond pointing out that the latter has by its achievements rendered such valuable service to science and to the practical problems of life as cannot be questioned and can hardly be overestimated. And upon turning to the other side of the question, we shall have no difficulty in admitting that pictorial work has been of great value to many arts, that in the field of portraiture it has been of inestimable value to humanity, while, with its ever-widening practice, it has given an impetus to the observation and enjoyment of beauty in Nature and in art, and in the *role* of an artistic hobby has led countless thousands into paths of artistic improvement they otherwise would never have trodden. No one will gainsay this; but at the same time it must be confessed that its benefits in all these avenues are more of a prac-

* A paper read before the Royal Photographic Society of Great Britain by its President, Mr. J. C. S. Mummery.

tical and social nature than of any particular advance in art, and it is only when we arrive at the point of the purely artistic aspect that we come into any region of uncertainty—a region in which it is difficult to demonstrate with any certainty that art has been materially advanced by photography in its own achievements. We must purposely exclude from this view the influence it has admittedly exercised upon painting and the kindred arts, because in these arts the aspects of Nature opened up by photography have been assimilated and used in their own fields in depicting the most modern views of things, and there are not wanting those who think that painting has not benefited by the influence. This question, however, is not one in which we are directly interested, and may safely be left to time to determine.

The question for photographers who desire to see their art taking an honorable and unassailable position among the fine arts is, rather, what causes have so far militated against the complete acknowledgment of that position, for I think we must admit its position and its qualifications are both questioned, if not directly challenged, by many whose taste and artistic acquirements can scarcely be gainsaid. This we know is a very thorny subject, and one in which we may easily be led astray by feelings artistic or otherwise, and it is a question upon which even all pictorial photographers are not by any means agreed, so if I open the question again please do not infer that my own connections upon the matter are in any way disturbed or that I wish to unsettle your views, but there is little use in hiding from ourselves the fact that the claims put forward by pictorial photographers are not accepted as they might be.

Could enthusiasm and argument have carried the conviction that photography was an art, let us say, comparable with painting, and equal to ranking, more or less, with that art, its position had long ago been established and the two had joined hands; but, it must be confessed, something has intervened to prevent this mutual agreement, and it would appear that that something, which has often been put down to the prejudice of the artist and art critic, may perhaps arise from a cause nearer home, namely, the evidence given by the pictorial results when compared with the claims put forward, and perhaps also to the leaning of photography upon painting and the imitation by some of its professors to the painter's views and methods.

It is conceivable that some of the prejudice which has existed, and which does so now among persons cultivated in art, may be due rather to the affectation of photographers than to any inferiority of photography, and also to the efforts of photographers to solve with limited and inefficient means the problems which painting faces successfully grapples with, its superior freedom, knowledge, and tradition.

In other words, the prejudice may be just and may arise from the influence which painting itself has had upon photography, in leading that youthful art to ape the means and aims of its elder sister, instead of cultivating itself along the lines of its own growth, so possibly having produced a colorless and superficial imitation of doubtful merit in the eyes of the educated, and this at the expense of some of its own personality.

If a somewhat tedious performance, it may not be altogether without use if we go back and consider in the very broadest outline some of the developments which have brought us to today.

I think we may assume at the outset that those who originated photography and made it a workable process were men of science, or, at least, of scientific bent of mind, and if I have read aright,

for I cannot remember those days, the successful practice of photography demanded continuous experiment of a scientific nature, both in chemistry and optics—sciences which in those times were not so generally studied as at present. These men, however, had in view the art of photography, but being of scientific temperament, their views, as is generally the case under such circumstances, were exceedingly strange. They were nevertheless enthusiastic in the matter, and seeemd to think that art as revealed in their methods of photography, with some little improvement in materials and lenses, was to be the predominant factor in the art of the future.

Many of the improvements hoped for by these pioneers have long ago come to pass, but the results are hardly as they anticipated.

To take as an instance only one item of their creed—an item around which, perhaps, more wordy warfare has raged than around any other—namely, "detail and definition."

Detail was the breath of their nostrils, and no effort was spared to obtain it and to fill the plate with it from corner to corner. To them it was a matter of regret that a lens was not capable of giving equally perfect definition upon all planes at the same time, and therefore it became necessary to fulfil their requirements of art to stop down to minute apertures to reduce the necessary diffusion beyond the limits of vision.

Well now, from our artistic point of view, they appear to have been hopelessly wrong, and to have driven their hobby to absurd lengths; and, as might have been expected, brought a reaction, and the first start of the recoil seems to have been made by a painter, Sir William J. Newton.

Of the trouble that ensued between the rival camps we need say nothing; it has often been referred to, and the sharpists were long since defeated and forgotten, and even Sir William's modest claims, which were "that the pictorial result was better and broader when the critical focus was confined to one point, the other portions to be slightly out of the critical focus," even these modest claims have been forgotten, and could Sir William have foreseen the orgy of diffusion which would eventually follow his guarded statement, we certainly cannot imagine that he would have gone to that meeting in 1853, and with a light heart put forward his suggestions.

While we are upon the points of critical focus and unlimited diffusion, we may as well belabor the subject a little more, because it is one of those particular points where painters and critics have often differed from photographers, and where a distinct prejudice may have been generated.

Obviously, there must be a reason, good or bad, why all the wonderful defining powers of the lens have constantly been discarded for the introduction of diffusion more or less chaotic. The photographer—that is, he of the diffusion—will probably tell us that the detail given by the lens is too great; it robs his picture of concentration, breadth of effect, feeling, mystery, etc., and that he obtains these qualities by diffusion.

Now, as a matter of fact, may not the photographer at this point largely be influenced by the practice of painting? May he not be trying to reach by a circuitous route the methods rather than the aims of painting, and if so, may he not be doing this at some sacrifice of the particular and characteristic qualities of his art?

Success is the justification of any particular method, and we may reasonably ask whether extreme diffusion has justified the sacrifices it has made. The painter and critic, I believe, say the photographer has not justified his work

in this direction—further, the painter has other views which from time to time he has not failed to express; he has said that he delights in good drawing, he aims at it himself, and looks with respect and pleasure at the inimitable drawing of photography, and wonders what can be the reason of its sacrifice. I fancy he sometimes sees in this sacrifice a sign of weakness in photography that it has not learned how to use its medium and confuses its own particular powers with its limitations.

Now, please do not infer from the foregoing that I am arguing for critical definition all over the plate, for that is not the case; but I think it may reasonably be argued that in the recoil from a surfeit of "critical definition" the photographer has sometimes declared that detail is inimical to pictorial aims, his *ipse dixit* being based more upon theory than upon practice—from an effort to evade an imaginary difficulty rather than study to acquire control over a power of unknown possibilities.

It may be noted that painters have often studied to obtain the effects of a wealth of detail, mostly by suggestion, the full drawing of such desired detail being impossible of realization in painting. In the case of a particular phase of painting, however, detail was aimed at and drawn with microscopic definition, and without any impertinence we may wonder how it was the talented artists left the broad paths of painting, and whether the results in this case entirely justified the course; their departure, however, is the reverse of the photographic revolt, inasmuch as it aimed at sacrificing only some principles of breadth, which could be more or less compensated for in color, for an increase in the preciousness of every inch of surface.

However, we will neither reproach painters for trying to emulate photographic detail, nor photographers for copying sometimes the methods of the painter, because these excursions may be honest experiment; but it does appear that in the case we have briefly considered neither painter nor critic has thought the result has justified the means, and we must not, of course, make these comments as applicable to all photographers, because there are many very able exponents of the art who have realized the power and use of detail and have never made a study of its destruction.

There is another direction in which painting influenced photography at an early period; and led to a phase of work that, viewed from afar off, appears to have been entirely the outcome of a desire to execute painter's pictures by photography.

Those who developed this idea were, many of them, exceedingly clever photographers. They went to work and studied paintings in their construction and detail and longed to essay efforts of a similar and complicated nature; but the difficulties of subject pictures, such as were desired, were insurmountable by direct photography, and therefore the very ingenious method of combination printing from many negatives was devised, and all the energy, taste, and enthusiasm of the photographer was lavished without stint upon the production of these works.

In these days of facilities we can hardly imagine the labor and effort involved in the production of such pictures, many of them of large size, but many of them very beautiful and much admired, and we cannot doubt but that they were artistically satisfying to the men of the time. However, with the further development of ideas, and the better appreciation of tones and values by photographers, even they themselves have been obliged to confess that it is not possible to print from a number of negatives in combination, however great

the care and dexterity, without sacrificing the truth of tone. And what photographers have found out in later days there can be little doubt that those trained in the refinements of art appreciated at the time. The same method of work was adopted in a more limited degree in landscape work, and, carried to great perfection, produced work with much feeling, work which has delighted many of us here present, but we may with reason have our doubts as to its lasting properties; at least it is probably obvious to most of us at the present time that when combination printing was practised even in such a simple degree as printing in skies to landscapes, the values were rarely correct or satisfactory in cases where the plain technique of photography was good. In the school I have referred to it would appear that this incorrectness was appreciated and masked to a certain extent by the introduction of uncertain definition and obscurity, very dexterously executed in the most capable hands; but after all a resource which appears to have grown into the predominant influence and led so many of our fraternity into paths of murky darkness such as no other art but photography has ever dared to tread.

I venture to suggest that the whole of this great phase of pictorial photography was the product of an effort to obtain the results of painting by photographic means unequal to the performance, and that although much good work was done, and possibly much learned in the doing, yet it has led to much that is bad and indifferent.

In the very early days of photography, a painter came into the ranks of camera men in the person of Mr. D. O. Hill, and did much work with the camera. It is true that his first idea was that of obtaining records for his painting, but he seems to have done much in photography as a definite end. Some of his work has quite recently been exhibited at the Photographic Salon, and you will all have had an opportunity of examining it. Situated as it was in a modern exhibition, you will probably concur in the conclusion that much of it was exceptionally fine, and some of it probably quite on a level with the best work of today. Now, if we make allowance for the optical and technical differences which have come to pass since the days of Hill, it does not appear that he sought any other than photographic methods of expression; certainly he did not sacrifice detail, but used it, and did not fear strong and vigorous lighting. Possibly he became a good technician, but we know he was working in company with an excellent scientific worker, Dr. John Adamson, and we have, I think, no reason to consider the work any other than the best photographically technical work these two men could do, aided always by the good taste and artistic knowledge of the painter—certainly it appears direct and unsophisticated.

As the best of Hill's work is in portraiture, it is not perhaps quite upon all fours with other classes of work, and I think that upon the whole it will be found in portraiture there has been less departure from the obviously photographic methods than in other branches. —the portrait by its simplicity and similarity of subject approaching more nearly to the painter position than do either landscape or genre subjects, where the painter's powers are far less restricted and the photographer's powers more curtailed.

The two specific cases which have been instanced and somewhat tediously described are not the only points at which photography has been influenced by painting; there are many others, and among them is a subject we have not heard so much of lately—impressionism, or photographs of the "impressionist type." It is at least difficult to see why this term was seized and imported,

unless in simple imitation of painting. The necessity for this expedient of painting does not properly exist in photography, and the effort to be impressionistic has usually meant merely an abnormal diffusion, the copying of the skeleton of the painter's figure, which he himself has probably much abused in order to be in fashion.

Other words and names will come to our memories; the word "study," for instance, so constantly applied to a finished work, is neither logical nor dignified.

It may be urged that the examples particularized belong mostly to the past. That is so—the past being in better perspective and more convenient for the purpose; but we cannot help but observe in the present the same inflences at work. In fact, our most modern processes in gum and oil provide wide opportunities for imitative work, and will probably pass through the same phases. For the present they are much in fashion, and in photography there is very much in fashion—so much, indeed, as to suggest that photography is without a true line of advance as an art. For we may fairly argue that where the bulk of workers rush in such plenty to imitate the work of one individual or one style, it is obvious they have no individual course of their own to pursue and develop, and from the ease and perfection with which the style and ideas of our leaders have often been imitated we may also infer that the power or insight of the leaders is not much greater or more subtle than that of the imitators.

The photographer, in fact, since he left the technical photography of early days, has often been at great pains to imitate painting methods and qualities, and even to imitate or copy the painter's ideas, and sometimes his very pictures. Doubtless many of us can remember seeing works which have appealed to us as being not only inspired by the idea of paintings, but actually built up and photographed in direct copying and sent to exhibition as the photographer's own work. Such photographs have sometimes got past selecting committees and received recognition, even at quite recent exhibitions, and if such works are despicable, in that without such acknowledgment they take credit for the ideas of others, they nevertheless show us that the photographer's desire to imitate the painter is very strong, even to the point of losing self-respect.

The lettering and plate lines imitative of the engraving, the cultivation of what used to be termed the "spoilt print" for the sake of the interest evoked in the modern man by the quaintness of antiquity, and many other feeble efforts to simulate the adjuncts or eccentricities of other arts, all fall within the same category, and would appear to show that very many photographers have not placed reliance in the obvious methods of photography for their success, but feel that something more must be added to secure it.

We have often heard the critic's observation that certain photographs are in imitation of engravers' and draughtsmen's productions, and we must admit these criticisms are sometimes wanting in accuracy, for the photograph need not always be an imitation of another process because its own natural expression happens to bear a close resemblance. Doubtless some may be imitations, but the similarity in other cases merely a coincidence; but probably many of you have felt the crushing effects of a friend's observations when he tells you your photograph is quite like a drawing in charcoal, or otherwise innocently suggests praises of your imitative skill. Of course, if the work is one of our own masterpieces, the inwardness of such a remark may sink into our hearts and drive us to wonder if we are really photographers working in a process with

strong characteristics of its own. I fancy that, as we are generally working in certain fashions with certain conventions as our guide, we shall probably prefer to put the critic down as an ignorant person and out of sympathy with photography, and in thus settling the matter we may be correct—or we may not.

Then coming to the very latest branch of pictorial work, the gum or oil print in color, and there may be some who would object on the score that these are not photographs, and therefore as such cannot be influenced by painting; that even that sheet-anchor of the adventurous which is denominated the photographic basis, is a negligible quantity. Well, we will not at this period attempt to define the exact status of such works, but give them the benefit of the doubt and call them photographs, because, after all, it is only a difference in name. In such cases where the effort is obviously made toward realism in color we must, I think, concede that the effort is obviously to obtain the painter's result by means totally inadequate to any perfect success.

You will doubtless consider that all the foregoing instances of influence have, according to the suggested theory, been more or less detrimental to photography. Well, perhaps many of them have been, in so far as they may have led the photographer away from the special form of expression which his art must have if it is really an art!

These efforts cannot, however, be taken in any way as entirely wrong; for art cannot be directed by logic or argument, however much we may afterward discuss the bearings of the course taken and experiment in unknown fields guided by increasing cultivation of taste (which is after all the only true guide) must finally lead in the true direction; and if these points have been enlarged upon as indicating influences which may have been bad, it must not be forgotten that the inception and progress of pictorial work are largely due to the influence of painting and other preëxisting arts, through their students, and certainly not to the scientific workers, who in modern times, at least (whatever they may have been guilty of formerly), have made no particular claims to any credit in the matter, and therein display their wisdom.

All the phases of work that have been mentioned—the built-up picture, the Cimmerian darkness, the excessive diffusion, and probably the colored gum and oil—are largely fashions in photography. They rise and have their fall. The one thing that remains constant and permanent is the inimitable power of photography to delineate and to seize the most subtle and evanescent beauties of Nature, and its incapacity to render coarse effects; its power in light and its futility in darkness. These powers have always been realized and respected by very many of the best and most refined workers.

Photographers, or at least the most eminent of them, have always had the abiding conviction in the power of their art, and in the position it should take, however much they may have endeavored to simulate the methods of other arts. Unfortunately so few photographers have had any efficient training in art, and for those who have had nothing has been available but the painter's training, and so the formula has been more or less set forth that art begins where photography leaves off; in other words, where you begin to paint.

If this were really so, surely photography would be about the most clumsy and impracticable means to an end which it were possible to devise, and unworthy of practice, except perhaps as a pastime. The excuse that it gives to the person who cannot draw the power of being a painter without the painter's

education is a sophistry as futile as to suggest that the printing press gives to the student the power to become the scholar without the scholar's education. In such a direction photography may do something, but it is open to doubt whether that something can ever be anything of perfection, and art without perfection is surely without conviction. Would it not be more reasonable, if we have any ideas of photography as an art, to look for its true development along the lines of its own methods and ideas? Because, if there is one view of things which is less explored than any other, it is the modern view or idea of things and life. All other views have been labored upon for ages, their conventions formed and understood, but it does not follow that the existing conventions are the best for photography; it may have to labor to form its own conventions; in fact, it is actually doing this, and possibly these conventions may turn out to be fact and reality, but at least it must be its own real self and not afraid of its origin. Then there may come at some point in the cycle of its fashions a pictorial photography whose methods of expression will be a logical development of its own craftsmanship, making use of all its powers and capabilities, and not avoiding them as barriers or limitations. Such a view appears to be quite logical, it may be quite possible, but it is not yet.

DEVELOPING GASLIGHT PRINTS.

THE greater number of photographers who use it appear to develop gaslight paper in a bath of developer, immersing each print entirely in the liquid. Having developed a good many gross of gaslight prints up to 8 by 10 in the way I shall presently describe, this mode of immersion, used by many, appears to me particularly wasteful. There is also the chance of air bells, etc., which frequently show on prints so developed, and the developer is so much sooner worked out. Of course, I do not claim any novelty in this method, as I did not originate it, but I have never noticed this way mentioned in the many articles on gaslight papers that I have read.

I use generally a plate of glass, clean, and 8 by 10, or larger, in size, and, in my own case, lay this across two narrow pieces of wood, which in turn lie across a tray larger than the glass. On this glass the developing is done, and the tray underneath is merely to catch the drip and prevent it going all over the table or whatever one may be working on.

If you have the luxury of a sink and water tap in your dark room, you can put the glass over the sink. Near at hand I have a small measure glass, with, say, 1 ounce of developer in it, and at one side a tray of clean water. After exposing the print as usual, it is placed face up on the glass, and, taking a piece of absorbent cotton, dip it in the developer in the measure glass, getting it thoroughly wet, and then rub it over the face of the print, first lengthwise, and then across, or *vice versa*, not forgetting the edges, which sometimes appear to have a habit of coming out a little slower than the centre.

Continue the rubbing until all streaks have disappeared and the picture appears even and sufficiently dark, then transfer to the clean water for a rinse, and immediately put into the acid hypo bath.

The rubbing, of course, must not be too hard, though it is wonderful what the paper will stand. Rough surface paper must be especially gently dealt with, and

the edges of all grades must be gone over carefully for fear of turning up the thin film of emulsion.

Prints can be wetted before developing, if preferred, but in this case the water should be allowed to drain off a little, and it will be found that the developing will take a little longer, in consequence of the slight dilution of the developer. The wetting of the print first will, however, insure even development, and it is advisable in the case of prints larger than 6 by 8. Personally, I prefer to develop the dry print.

A certain amount of local development can be done in this way, by rinsing off the developer when most of the print appears finished, and applying the cotton to the part which is slow in appearing. But it is advisable always with gaslight papers to expose properly rather than to force any part, as prolonged development almost invariably produces stained prints.

Remember to rinse off the glass plate every now and then, and to take a new piece of absorbent cotton for, say, every three or four prints. Absorbent cotton is cheap, and using one piece too long may result in brownish or greenish prints. The size of the piece of cotton may be left to the worker. The writer uses a piece about the size of a large walnut.

Using this method of development, it is really surprising how many prints can be done with a very small quantity of developer, and as to the question of time employed, I find it as quick a method as any other I know of, and I have a good deal of this work to do in a commercial way.

One other note I would like to add. Prints can be dried unmounted best by placing them face down on clean white cotton cloth or calico, provided the fixing bath contains alum, as in the bath prescribed for Velox or Cyko paper. If alum is not used they will possibly stick to the calico.

A FEW RULES I HAVE FOUND GOOD TO FOLLOW.

Making Sittings of Children. Use plenty of light; do not be afraid of using too much, for the more you use the better the negatives will be. Bear in mind that more light means greater softness and roundness. The light should fall from the front, both side and top. Children's faces do not show any character, so that the light may be as strong as wanted without destroying the likeness. Another great advantage in using a large source of light is, of course, to be had in making the sittings quickly. I make all children's pictures in snapshot work. This may seem bad policy to the one who believes in the long exposures, but, as stated above, I have not found that it destroys any of the character, and inasmuch as I get a fully timed negative by using a large source of light, the negatives show plenty of strength. Also, I use, as a rule, light grounds for children's pictures. I have always associated the lives of the little ones with light and sunshine. Make their pictures show it. A child is all out of place when shown in a picture as though he were sitting in a dark room. Children do not like night or dark rooms, but they do like sunshine and plenty of it. It is their nature, and why not show them that way.

Old People. Of all the subjects that come to the studio, I would rather photograph the old folks than any. Every face means something, and every line in the face means some trial overcome, some story that we all could profit by if it were not for the fact that we all have

to learn by actual experience. For such subjects I use the light from a lower source, working it more from the side and rather farther to the rear of the subject than usual. Do not try to fill every line and wrinkle with light, thinking it will better the picture. It makes it weak in character. A better plan is to use the lens open—that is, without a diaphragm—and focus well up on the end of the nose, so that the face may be in a soft, delicate diffusion. Far be it from my intention to recommend the fuzzy, woolly type stuff that is often seen, but a soft, diffused focus gives to the old face the softness of age without destroying character and without exaggerating the lines, as is often done, both intentional and unintentional. Some operators seem to think character expresses more than a delicate handling of the lines.

White Draperies. Pose the subject close up to the light and use a very small opening; in fact, some of the very best things I ever made was by an opening no larger than a window. This allows the operator to concentrate the light directly at the face of his subject, and the drapery is thrown down in a lower tone by reason of the light being too small to spread all over the entire figure in even strength. Also, the figure should be turned a trifle from the light if perfect detail is to be secured. By having the figure turned from the light it throws the front of the figure in shadow, and the shadow, of course, holds back the details and thus prevents the drapery from developing ahead of the face to the extent that the detail would be lost in it.

Dark Draperies. Use light falling from the front, and have the top light a little in excess of the side light and the figure facing more to the light. Better detail is the result and less screening is needed. Be sure to time for the deepest shadow in the drapery if it is to show the detail. One cannot get the detail if the exposure has been too short. The face must be toned down so that there is an even blending of the lights into the shadows, for if this is not done the lighting will be harsh, and the face will stand up like marble while the drapery will look more like a charcoal drawing.

Hollow Eyes. The light must fall from the front and low down. This means that the operator must use his light low enough on the side so that it can get into the eyes. Bear in mind that light does not bend out of its course, and if it is falling from above the subject it cannot bend out on the brow and then bound back again to get into the eyes. The operator must so arrange his curtains that the light is directed into the eyes, and it will be found that when this is done it will be from a lower point than he is in the habit of working the light. The little catchlight that should appear in the eyes can only be gotten by the use of a light that is low enough to fall across the nose just at its root, so that really the light passes between the two eyebrows, over the top of the one on the light side and under the one on the shadow side, and thence into the shadow eye, and the catchlight is the result.

Long Neck. Turn the subject's body a trifle from the light and the face back to the light and lower his head. By so doing the chin comes down toward the shoulder nearer to the camera and the line of the neck is visibly shortened. At the same time the camera should be raised above the subject's nose, so that it really looks down on the chin.

Long Nose. Raise the subject's head and lower the camera, so that it comes under the nose and allows the nostrils to show from the lens.

Short Nose. Raise the camera and lower the subject's head, so that the nostrils can barely be seen.

Long Face. Use front light and rather diffused. Make a three-quarter view of his face, unless he has a hollow cheek, when it is a good plan to allow the ear to

just fill the hollow of the cheek on the shadow side of the face.

Short Neck and Round Face. Have the subject stand, even though a bust negative is to be made. This allows the shoulders to fall lower and the weight of the body is pulled downward, so that all features and members are elongated. Make almost a profile and use very strong light from the side and no reflected light on the shadow side of the face. Remember that contrast gives a lengthening effect to a round face. One reason the moon is said to be full is because there is no shadow on it, and the result is that it is perfectly round. The same is true to the one with a short neck and round face.

Bride and Groom. The bride should be posed on the light side of the picture —that is, on the side next the light. This is done so that a small opaque screen can be brought close up to her and screen down the drapery, so as to show the detail in the whites. At the same time, the groom being farther from the screen than the bride, the light falls over the top of it on his black clothes and thus gets the detail in the blacks.

Hands. Be careful to allow just a trifle of the cuff to show in the man's picture, for it makes the hands appear smaller than anything else can do. Also, as a rule, the hands should be posed somewhat to the side, so as to appear smaller, and should not be placed directly under the face nor in line with the face. They should be screened somewhat, so as not to be lighter than the face.

Blondes. Use a low key of light, so as to get all of the strength possible. As a rule, the blonde appears to be lacking in strength in the picture unless so handled. Some shadow effect is good, but do not make the mistake of making a contrast lighting, thinking it is a very low key. A low-keyed lighting should have just as much softness as the high key. Soft, delicate detail should be seen all through the entire lighting.

Brunettes. A higher key of light, and the face so toned down that it is brought in closer touch with the hair. The hair being black will lack detail if the face is not toned down so that the exposure can be given long enough to get the details in the hair.

Glossy Flesh. Where the flesh is moist it makes the highlights stand up too strong, and the result is a harsh lighting. If a powder puff is passed lightly over them with just a suspicion of powder on it, it will kill the gloss and the lighting will be more even and show better detail in the highlights.

Dry Flesh. Sometimes the flesh is so dry and of the same tone that the result shows the face to be flat, with no halftones. If the operator will have handy a small vial of oil, which has been scented up with lavender water, and just touch his finger to the mouth of the bottle, getting the smallest bit of oil on it, and then touch the flesh where the highlights should appear, he will get much better roundness. Too much oil will give a harsh effect. The lavender water is to make the oil have a better scent.

Staring Eyes. Light the subject in a very low key of light, so that an exposure of several seconds has to be given, and then have the subject wink the eyes several times whilst the exposure is being made. The winking of the eyes does away with the stare.

Sleepy Eyes. Have the subject lighted in a low key of light, so that several seconds' exposure has to be given, and then have him look directly in the centre of a large black background or black cloth. The eyes will expand somewhat and the expression is much better and more animated.

Crooked Nose. Show the side of the face that has the hump of the nose. Do not photograph into the hollow of the

nose, as that makes it appear worse. Use broad lighting falling from the top and front, making the shadows fall more downward.

Mouth That is Lower at One Corner Than the Other. Pose the subject so that the head may be tilted toward the side that is higher. This lowers the corner that is higher and raises the corner that is lower, and the mouth is made to appear straight. By "tilting" the head I do not mean to *turn* the head, as that is quite different. I mean to tilt the top of the head to one shoulder or the other, whichever is needed.

High Cheek Bones. Use front light, from top and side, and make a front view of the face. The light should be soft and the shadows full of detail.—FELIX RAYMER in *Trade News.*

TINTING TRANSPARENCIES.

A LITTLE careful tinting is a great improvement to a good transparency; a tastefully tinted slide is as far in advance of a toned slide as the latter is of the cold black and white monotony which so frequently makes its appearance during an evening's entertainment. Of course, this is rank heresy, for everyone knows what an inartistic abomination a colored slide is; but in this case we are not dealing with gorgeous commercial productions, but with a home-made transparency, in which the main features have just that suggestion of color which so materially assists in adding atmosphere and atmospheric perspective where otherwise the methods of production hardly permit those desirable features to exist.

The method of tinting slides which is here to be described is a simple one, and no knowledge of artistic manipulation is necessary in order to produce decidedly pleasing results. The one thing which must be borne in mind is to apply all tints lightly; it is a suggestion of color rather than the actual thing that should be aimed at, otherwise we shall soon find ourselves encroaching on those wonderful emerald skies with purple clouds so dear to the heart of the professional "brother brush." A finger-dabbed firmament in Prussian blue is more suited to the "Bertillon" system of identification than the regaling of an artistically appreciative audience; we cannot, therefore, too strongly insist on the necessity of avoiding bold coloring, as the unavoidable crudeness of the more transparent colors absolutely compels careful and discriminate use in order to maintain that mellowness of tone peculiar to nature.

The clearest way of showing the method to be employed when tinting gelatine transparencies will be to imagine a subject, such as a landscape, composed of sky, distance, and foreground with foliage; but before commencing on our subject it will be well to draw up a short list of the materials required; and to avoid the trouble of mixing tints a fairly full palette should be selected.

My own plan has always been to purchase one pennyworth of the aniline color in crystal form, and then dissolve it in 2 ounces of distilled water. This is a decidedly vague receipt, but its simplicity should prove a recommendation, and, after all, the strength of the color is immaterial, provided it be not too weak to give the deepest tone desired. Colors can, of course, be thinned to any extent by adding water to them on the palette.

With regard to brushes, two, or at most three, will suffice—a camel's-hair mop, about the size of the little finger, and two sables of different sizes, both

fairly small. These are the absolute essentials, and nothing else is required, unless, when dealing with some exceptionally difficult and intricate subject, in which case crystal varnish and an additional brush must be procured.

We will now commence work on our imaginary transparency, consisting, as above indicated, of sky, distance, and foreground, with foliage. The colors required will be blue, brown, and red. Place the transparency in a convenient-sized dish (say, 4 by 5) to soak, leaving it there for about five minutes, and while this is taking place mix a little of the blue with about four times its bulk of water on the palette. Now take up the transparency in the left hand, and after slightly draining it hold it in a horizontal position, and mop on the pale tint of blue, so as to cover the entire surface, including sky, distance, and foreground. As soon as the gelatine is lightly stained (say, in two to four minutes) plunge the transparency in the dish of water to remove the surplus color, and then lift it out, this time keeping the plate vertically inclined, with the sky downward. More color must now be mopped on to the sky, beginning at the horizon, and allowing it to flow toward the zenith; finally, when the sky is dark enough, the surplus must be once more washed off by immersion in the water dish. At this stage allow the slide to dry for about five or ten minutes in a horizontal position; face down, with the four corners resting on an old plate box, is the best way, as it lessens the danger of dust falling on the moist gelatine.

The brush should now be well washed and some clean water placed in the dish preparatory for the second painting.

Take some of the brown tint and mix it with water on the palette, taking care that the color be not too strong. Now hold the slide over the water dish, sky upward, and go over the distance, foreground, and foliage with a clean brush dipped in water, and afterward with the brown. By holding the slide almost horizontally, the brown color may be accumulated on it, the greater depth, however, being allowed to rest on the immediate foreground. It is by this method of flowing the tint, much as varnish is used on a negative, that the most delicately graduated tones are obtained, and the color may be worked from the palest of yellows in the distance to a tint of gradually increasing strength, which adds wonderfully to the effect of distance, and hence atmosphere, and at the same time brings the foreground up to our very feet.

As soon as the brown has done its work the surplus color must be removed by plunging the slide in the water dish, and after a very little draining it may again be partially dried for five to ten minutes, while the brush is again washed and the water in the dish changed.

The general appearance of the slide now, if all has gone well, is a graduated blue sky considerably stronger at the zenith than at the horizon, while the remainder of the picture is graduated from distance, or even the tops of the large trees, to the foreground in a mellow tint of green in gradually increasing intensity.

The third and last tinting consists in applying a second coat of brown to such parts of the foreground as are best represented by that color, always being careful to go over the part with a wet brush first, and finishing without washing the slide, as in previous paintings. The distance is sometimes much improved by filling the brush with a very thin tint of red and then passing it once or twice gently along the horizon, thus slightly warming both sky and distance. If there are any figures in the picture they should be picked out in much stronger tints than have hitherto been used, and this should be done when the gelatine has dried for a quarter of an

hour or more, in order to avoid the stronger tints running, which they are very apt to do if the slide is too moist.

This practically concludes the simple process, and if entire satisfaction is not felt in the result, twenty-four hours' immersion in a pint of water will remove every trace of color without doing the slightest harm to the transparency, which may be re-tinted and washed several times until the desired effect is attained.

TRADE NOTES.

WE are asked by the Taylor-Hobson Company to announce that their Series II Cooke anastigmats may now be obtained to order with extension lenses somewhat like those furnished for the other series. By removing the front glass and substituting another, the entire focal length is increased. Thus, from the same point of view, the photographer obtains larger images of distant objects. These extension lenses increase the size of image about 50 per cent.; for example, an object taken with the normal lens, and two inches long in the photograph, is, from the same position, made three inches long with the extension lens. Better results are obtained than with the separate portions of other makes, practically two complete anastigmats being available. Present users should note that their Series II lenses may be fitted with these new extensions, but the register number of the lens should be given with the order. Extension lenses for Cooke anastigmats, other than the Series II, have long been used, the back glass having hitherto been the one replaced. The Series II are the only lenses which permit the change at the front.

THE coming summer will be the best season postcards ever had, so get in early with your new cards. No racks are complete without local views. If you are in doubt where to place your order for view cards, write the National Colortype Co., of Cincinnati, Ohio, for their samples. They were the first makers of the hand-colored cards in America; old enough to know good cards, and young enough to skilfully prepare them.

VOIGTLANDER & SOHN wish to announce the fact that they have established a branch office under the name of Voigtländer & Sohn Optical Works, at 617–631 West Jackson Boulevard, Chicago, where they will carry a complete line of their celebrated photographic lenses and cameras, binoculars, telescopes, microscopes, etc., and where they will be prepared to attend to all kinds of fitting and repairing in a prompt manner.

FOR well-balanced, rich, soft prints, Cyko has few equals. It comes in four grades and five surfaces, and is a paper to be depended upon for uniform results. The Ansco Company, Binghamton, N. Y., have a two-volume photo library they would like to mail you. Write them for a copy, mentioning this magazine.

THE seventh annual session of the Southern School of Photography opens at McMinnville, Tenn., on April 1, and offers a thorough course of practical photography, under the supervision of Mr. W. S. Lively, whose knowledge of photography and method of teaching are too well known to need mentioning in these pages. There is a special postgraduate course for professional photographers.

Two new development papers are announced by the Sussex Photo Paper Co., of Newton, N. J. —"Crystalla," a portrait development paper, for soft results and olive tints; and "Chloralla," a development paper for views and commercial work. Samples of the paper and booklet for their successful working will be sent on request.

THOSE photographers who are not possessors of *The Complete Self-instructing Library of Practical Photography* should read the announcement printed elsewhere in this issue concerning the special offer made by *American Photography*, which is offering the *Library* at a very special price.

RULES AND REGULATIONS FOR EXHIBITS AT THE MILWAUKEE CONVENTION. (1) Exhibitors are requested not to exceed three prints in their exhibits —no other restrictions. (2) Application for exhibition space must be made to First Vice-President G. W. Harris, 1311 F Street N. W., Washington, D. C. (3) All exhibits must be sent prepaid to G. W. Harris, First Vice-President, Milwaukee, Wis., care of Milwaukee Auditorium, and must reach Milwaukee on or before July 8, 1910. Any exhibit not having express charges prepaid will not be accepted. (4) The Association will not be responsible for any loss or damage to pictures in its charge; but special precaution will be taken by the Committee to insure the safe return of all exhibits. (5) No exhibits shall be removed from the Hall until after the close of the Convention. Exhibitors who desire to personally take charge of, or remove their exhibit, may do so only by permission of G. W. Harris, Chairman of the Hanging Committee. (6) This exhibition being a complimentary one, and the photographs being solicited with the understanding that they are to be returned to the rightful owners, all exhibits will be returned to them intact at the close of the Convention.

WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

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EDITOR'S TABLE.

AN exhibition of photographs by E. Goldensky and R. T. Dooner, associates, was held under the auspices of the Alumni Association of the School of Industrial Art of the Pennsylvania Museum, Philadelphia, February 14 to 28. The clever photography of these well-known workers attracted a very considerable attendance and created much interest.

BACK TO BROADWAY! is the announcement just received from our old friend George G. Rockwood, whose Fifth Avenue studio building is to be torn down to make way for a skyscraper. This decides Mr. Rockwood to consolidate with his original studio, at 1550 Broadway, and the "White Way" at Forty-sixth Street will look like itself again with the Rockwood sign hung out.

THE third annual ball and reception of the Professional Photographers' Club of New York, held at Palm Garden, New York, on the evening of February 16, was another big success. This fixture looks like becoming the big photographic event of the year for New York. The members of the Club were there in full force, dealers and manufacturers were well represented, as was the Metropolitan and Buffalo sections of the P. P. S. of New York and the P. P. S. of Pennsylvania. After being entertained by a first-class vaudeville entertainment, dancing was indulged in until a late hour. This club is to be congratulated on its management of such an enjoyable affair.

A FEW days ago we strayed into the studio of Robert MacCameron, and found the famous portrait painter reading Sidney Allan's book on *Composition*. When we referred to it, the artist exclaimed: "I tell you, that's the real thing; that's what we painters need—common sense talks, straight from the shoulder, by a man who knows." Such comment from a painter who has received the highest honors in Paris, whose "Absinth Drinkers" is hung in the Corcoran Art Gallery, and who is at present painting the portraits of Mrs. Jas. Borden, Mrs. B. S. Guinness, Miss May Harriman, and President Taft, would indicate that the book had considerable value to the portraitist.

THE regular February meeting of the Metropolitan section of the P. P. S. of New York met at Keen's chop house on February 10, when some remarkable photographs, made by Mr. Mix, of New York, and Mr. Beach, of Buffalo, with an entirely new method of artificial illumination—Mr. Mix using a single inverted Welsbach gas lamp, and Mr. Beach the new Tungsten electric lamps running up and down the bars of the skylight. The pictures were viewed with much interest, as they opened up possibilities of the use of these lights for portraiture.

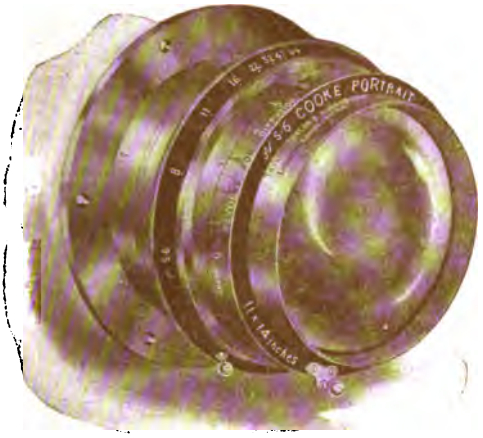
THE seventh annual convention of the Ohio-Michigan Photographers' Association will be held at Jackson, Mich., March 22–24, inclusive.

THE following portrait was made without the aid of a camera, and is dedicated by the author to photographers:

A PHOTOGRAPHIC STUDY.

HER high young head plays hide-and-seek,
A glimpse of brow, a curve of cheek;
Her dreaming eyes we almost miss,
Her neck the bold sun dared not kiss;
Yet on the shoulder bands he shines,
And shows the artful, shaping lines
That close and spread and glimmer down
Her modish, new, old-fashioned gown.
The light, through latticed window panes,
Which on so many beauties wanes,
Arrested by its potent charm,
Beams full upon an ivory arm,
And brings the gazer's eye to rest
Upon the cunning artist's test,
The salient witness of her skill:
With palm averted on the sill,
The wrist supported by the head,
And fingers daintily oustpread—
Unconscious, innocent, and bland,
A sweet white morsel of a hand.

MARY J. JACQUES.



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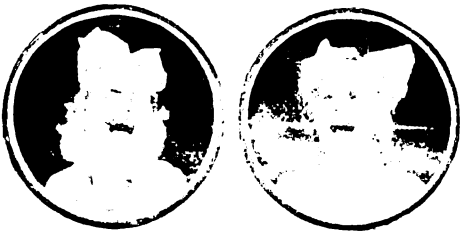

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Vol. XLVII ✣ ✣ ✣ ✣ No. 640

APRIL, 1910

WILSON'S PHOTOGRAPHIC MAGAZINE

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SINGLE COPY, 25 CENTS

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OUR PICTURES:

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WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVII APRIL, 1910 No. 640

HAVE A REGARD FOR TRUTH.

THE professional photographer is, of necessity, compelled to use a certain amount of printed matter for advertising purposes. In the preparation of this matter he should have a strict regard for the truth. When making a list of our virtues and accomplishments, there is always the temptation to increase and enlarge them at our neighbor's expense.

Not even membership in an association boasting fraternalism and mutual help will deter some men from hitting below the belt when writing "copy" for a circular announcement. One photographer from the middle west, an active convention man and president of his state association, determined to open a studio in New York, and got out a booklet. We quote the opening paragraph: "Do you know that although portrait photography is thought to have attained a state of almost absolute perfection, there is no place where real art in photographic portraiture comes nearer being entirely eliminated than in the numerous mills called 'Photograph Studios' of New York city."

If the patrons of the splendid "photographic mills" on Fifth Avenue had taken this gentleman at his word, they would have gone to him for their portraits, and he would have been a millionaire by this time. Evidently the statement did not convince them; they did not go, and the man from the middle west failed to make good.

A frank acknowledgment that there are other workers in your line as good—maybe better—than yourself, will be to your advantage.

Leave ambiguous and misleading statements severely alone. If you have taken prizes, and do not care to say where, do not come out and say they "have been awarded at conventions in the art centres of civilization," as one booklet we have before us did. Winona, Ind., Celoron, N. Y., Jackson, Mich., and Dayton, Ohio, are not "art centres of civilization" in any sense of the word.

When there was more than one medal awarded at a convention, be careful to see that your printer puts "a" before it, and not "the," when you are getting out your announcements. Don't rob the other man.

Be honest with yourself and your customers, and don't forget that even your competitor is a photographer. In painting him black you are smirching your own profession and not adding to your own reputation.

PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK.

Program of the Sixth Annual Meeting, April 6, 7, and 8.

NOT since the organization of the Professional Photographers' Society of New York has a more interesting program been arranged than that for the State Convention, to be held in the Metropolitan Life Insurance Building, New York, April 6, 7, and 8. Every effort has been put forth by the officers of the Society to insure that this convention will mark an epoch in the history and growth of our flourishing organization, and a glance at the main features of the excellent three days' program will convince any photographer that the combination of business, pleasure, and instruction is a most happy one. Not a member of the Society will feel that he can miss this convention. Consider the splendid features below, and ask yourself if you can afford to be one of the stay-at-homes—if there are to be any such this time.

Chief among the exellent features on the program will be an illustrated lecture by William M. Chase, famed the world over as America's leading portrait painter. Other members cannot fail to appreciate how much this means not only to them but to our whole organization as well. This master artist's career bespeaks a lecture of absorbing interest and splendid educational value. Mr. Chase was born in Franklin, Ind., November 1, 1849, so he is now at the height of his powers as a painter and an oral delineator of his art. His early study was under the exacting tutelage of B. F. Hayes, Indianapolis; J. C. Eaton, New York; Wagner and Piloty, Munich. Following this, he established a studio in New York, and his genius received speedy recognition.

Former President Bradley, of our Society, fully indicates the importance which should be attached to Mr. Chase's engagement in the following expression: "I feel that our Society is to be congratulated upon securing the services of so eminent an artist, one who stands in the very foremost ranks of our American portraitists, and whose lectures are received everywhere with so much pleasure and to the great practical benefit of his auditors. The fact of being able to secure so eminent a man is only one of the signs of the times of the general trend of public opinion as to the acceptance of our art as an art by those whose opinion we value the most, and, furthermore, shows the strength of our organization work in fostering and directing such opinion."

Salesmanship.

A topic full of great possibilities will be that upon which A. F. Shelden, of the Sheldon School of Salesmanship, Chicago, will be heard. He will talk on the subject in which he is most vitally interested—"Salesmanship"—and our members may be sure it will be exhaustively treated. Mr. Sheldon will be followed by Pirie MacDonald, J. E. Mock, Mrs. Floyd E. Baker, B. Frank Puffer, William Shewell Ellis, Philadelphia; R. W. Johnston, Pittsburg, and others, and, what will prove of great interest to all, each member is expected to be prepared to give a three-minute talk on this live topic.

Advertising.

Justin McCarthy, Jr., one of the most noted advertising experts in the United States, has promised to speak to us on this topic, and it is quite likely that W.

B. Freeman, of the New York *Mail and Express*, will also speak on this subject.

Print Exhibit.

Pictures at the coming convention will, without doubt, excel in beauty, uniqueness, and artistic qualities any ever shown in the past by members of the Society.

An Advisory Committee,

Consisting of former Presidents Dudley Hoyt and A. F. Bradley, with Mrs. Gertrude Kasebier, E. B. Core, William M. Hollinger, B. J. Falk and Ryland Phillips, will be at the hall each day, and upon request will point out to you the good features of the pictures on exhibition.

$50.00 *Gold Prize.*

All devices, ideas, or any suggestions which can be applied to photographers' use, and which are entered in competition for the $50.00 prize, will be on exhibition from the opening of the convention.

Exhibit Table.

Every photographer should, and undoubtedly will, take an interest in the Exhibit Table competition for the $50.00 prize. Here will be shown any new idea for simplifying or expediting the photographer's work; any new system or device, no matter what, which can be applied to time-saving or labor economy. Every member is cordially urged to contribute to this exhibit. An hour will be given to explain the exhibits, and there is every reason to believe this will be a popular feature. Secretary Howard D. Beach, 469 Virginia Street, Buffalo, will be pleased to receive your entries.

Notes of Importance.

The Society Dinner at the Fifth Avenue Restaurant is to be in charge of former President A. F. Bradley. There will be delightful orchestral music and many other charming features. Tables seating parties of four to six may be reseved by writing Mr. Bradley.

Associate Members. Professional photographers, not residents of New York State, are eligible to membership, and will be entitled to all the privileges of active membership except that of voting.

Ladies attending the convention will be given a cordial welcome, and our members are urged to bring their wives. Treasurer Lloyd will issue special passcards for them.

The Society of Professional Women Photographers of New York will tender a luncheon on the first day of the convention to its associate members.

The object of this Society is the betterment of the profession and maintaining cordial relations between its members. A society of women photographers and the wives of photographers is worthy of hearty support, for our business success depends largely upon their cooperation. The wives of photographers throughout the State are eligible to associate membership. The dues are $1.00 a year. Make application for membership to Mrs. Floyd E. Baker, 590 Fifth Avenue, New York.

Lenses of the same focal length always include the same amount of subject on the same-sized plate, no matter what they are called.

For rapidity, the glass of a lens should be as colorless as possible. To judge of the color, lay the lenses on a piece of white paper in good daylight.

The nearer the stop is to a single lens the less distortion there will be towards the edges of the plate, and the larger the plate will be that the lens will cover.

CHILD PORTRAITURE.

"POSING a child for its portrait is a matter of time and hard work," writes a well-known woman photographer of New York. "Some few methods of overcoming the difficulties of the situation are described and endeavors are made, so far as possible, to analyze the means of success. 'I hardly know how I get children to sit so admirably for me,' said she. I suppose, however, that it comes from an entire understanding of children. Probably the mode of treatment differs with each child. They must be managed according to temperament. Yet I never set out to win their goodwill. On the other hand, I rather neglect them, simply leaving them alone to become acquainted with the studio. One or two general rules I do follow, though I never antagonize a child. Rather I humor it, when it is begun to be interested in me. Again, if I begin to think that a certain pose would be just the one for a child to take, it almost invariably happens that this is the last that is natural to him. It never pays to have a preconceived idea of a child's pose. I simply let the boy or girl wander about until I see what it is that he wants to do, and what he will do. Sometimes when a child does not want to do what I desire him, I say, 'You won't do that, will you?' Nearly always the mischief in the child makes it go at once and do that very thing. After one has often failed to make a good picture of a child in its best gown one can achieve a great success by merely slipping an old frock on it. I never let a child become excited. Some persons think tots must be on the *qui vive* in order to look bright, but this is not true.

" 'I don't consider it difficult,' continued the photographer, 'and there is no one I would rather see coming into my studio to be photographed than a little child. Perhaps if I had not always loved to be with children I might speak differently, for it takes time to get a child's portrait. I refuse to attempt to do so in less than an hour, and often it takes two or more. However, it depends very largely on the child. The moment he tires and shows the least signs of peevishness it is time to give up all effort for the day and try again some other time, when he is fresh. The mother may bribe it to remain quiet with a promise of chocolates, but the picture will be a failure. I don't mean to say that there is no work about photographing a child in a natural way, but I do believe if a woman has the knack of making these child portraits she will find the labor so fascinating that she will not call it drudgery. I suppose one has to have the gift of managing children born in them. The end to be obtained is to get them posed as unconsciously as possible. I like best to photograph one child alone. I want also as few accessories as possible in the picture, for it is my object to make a portrait of the child; that means to reproduce it as it is—to translate its temperament into the photograph. I don't mind a doll in the picture, and always keep a few toys at hand for the children, but I never pose a child at a tea-table. There would be too much distracting detail in such a photograph. This is merely my personal taste in the matter, however. Laughing portraits I seldom take. They are easy to get, but the result is usually a foolish grin. A child should look bright and intelligent, and a smiling child rarely does so. A child's interesting moments are its grave ones.' "

PHOTOGRAVURE FOR THE NOVICE.

(*Concluded from page* 112.)

Printing from the Plate.

It may at first sight seem strange that I should deal with the subject of printing before that of finishing the plate. But the reason is this: As we shall want to pull proofs of our plates to see how the finishing and working-up are progressing, we shall have to know something about printing. It will, therefore, be as well to settle with that part of the process, and so save unnecessary repetition.

We shall want some photogravure ink, a slab of some sort, a dabber, a warm iron plate, some fine muslin, some whiting, some printing paper, some printing blankets, and a roller press. The ink may be bought, but it is most usual for the printer to make it himself. The colors are kept in a dry state, and are prepared as required; they are as follows: French black (for cold black), Frankfort black (for warm black), raw and burnt sienna, raw and burnt umber, Vandyke brown, flake white, carmine, cadmium, Indian red, etc. It will be unnecessary to procure all these colors until we require them; but if we decide to make up our own ink, it will be as well to start off with one of the blacks or browns, and the same suggestion applies to ink bought ready prepared.

If it is not convenient to make the ink, or any difficulty is experienced in obtaining it ready made, a fair substitute for experimental purposes will be found in a tube of ordinary oil color.

Now, let us suppose that our subject represents a landscape scene, and we decide that it will look well printed in a brown color. We prepare our ink in the following manner: Having selected our color from the above list, we take a small quantity and place it upon a stone slab or a sheet of stout glass. Then, with a stone muller, we crush the color until it is reduced to a very fine powder. We next add a very small quantity of burnt oil, and mix the whole together with a palette knife until it is a pasty mass. We again use the muller, grinding the mass up, and working the muller with a circular motion. The ink should be of the consistency of thick cream, and we must add more oil if necessary, adding only a little at a time until the desired consistency is reached. One thing to remember is that the more grinding the ink receives the better the quality. The process, however, is not difficult, and can soon be mastered. If the amateur has not a stone slab and muller, a capital substitute will be found in his pestle and mortar; the only difference will be that he will have to transfer his ink, when made, to his ink slab.

Having settled with the ink, we shall next require a dabber. This is easily made. Procure some linen rags and roll them tightly into a ball; then get a nice large piece and cover the lot over, carrying part of the rags up to the top, so as to form a handle to hold the dabber by. Then, either sew the top together or bind it firmly with string. When finished, the dabber should have the bottom perfectly smooth, and the whole would be something of a pear shape, but with the top, or handle, rather small. The actual size is of no importance; but it should be made sufficiently large to be convenient.

We will now turn our attention to the press. Small presses can be obtained for about $50, though second-hand ones can be purchased much cheaper. If the

amateur can get one of these, or have access to one, so much the better; but I believe the majority of my readers will not be in that happy position. It is for these that I am going to explain how an ordinary wringing machine can be utilized for our purpose. The first thing we must do is to take off all the pressure that we can by unscrewing the top screw and letting the spring up.

Next, get a good stout board that is not wider than the rollers, and place this between them, so that it may form the plank to carry our plate. We shall now want a few strips of printer's blanket (an old one will do), a little wider than the paper we intend to use.

We now cut three strips of the desired width, and sufficiently long to go round our top roller. These we carry round and fasten at the top with a large blanket pin, taking care that our best and least worn piece of blanket is the last to be put on, as it will be our "front," and the smoother this is the better.

It is as well to have the paper we are going to print on slightly damp. A highly glazed paper is not quite suitable. so I suggest, for experimental purposes, we tear a few sheets of the dull variety of notepaper in half, and, taking the lot in one little pile of, say, a dozen sheets, immerse them for about two seconds in water, and then place them between two sheets of blotting-paper, under pressure, until required.

We will now pull the first proof of our plate. Have at hand a warm iron plate, a piece of muslin rolled into a loose ball, a ball of whiting, and a small piece of the blanket. Having placed some of our ink on the slab, we take the dabber and, with a rocking motion, work the ink over the slab with it. This thins out the ink, and at the same time covers the dabber evenly. When we have done this sufficiently, we take the plate in the left hand and, holding it by the thumb, and with the fingers beneath the edge, rest the plate upon the warm iron plate, and while there work the ink into it with the dabber, using the same kind of rocking motion as we did when we inked the slab.

The plate must be turned round so that it may be inked all over. When this is done, remove the plate from the iron, and with the ball of muslin carefully wipe off all the ink from the surface of the plate. To assist us in doing this, we may warm our rag on the iron, and keep on turning it, so as to get a fresh wiping surface. One thing we must be careful of—while we must remove all the ink *off* the plate, we must see that we take none of it *out* of it. In other words, all the ink possible must be retained by the image, and only that upon the surface removed. When this has been done, we take our small piece of blanket, and, doubling it over the thumb, take a little whiting on it, and then go carefully round the margins of the plate to clean them. We must take care that we do not encroach upon the picture.

We now stroke the plate with the thick part of the palm of the hand, wiping off any ink we take up, until it much resembles an ordinary brass name plate in appearance, and with the image showing vividly in color against the bright copper. Give the margins a final clean, and the plate is ready to print from.

We now take one of our pieces of notepaper and place it in the centre of the plank. This will be our guide in printing. On it we mark the precise position we intend our picture to occupy by placing the plate on the paper and running round the edge with a blacklead pencil.

Having marked the position, we leave the plate there for a moment, and, taking another piece of paper, place it exactly over the piece we are using as a base. We must now adjust our pressure. We must screw down our top roller until it bites fairly hard. When this is settled to our satisfaction, we turn the handle

of our mangle. Gradually the rollers will revolve, the plank will travel forward, carrying the plate and paper beneath the blankets, and, as it emerges on the other side, we may take the top paper off—our first proof is pulled!

Finishing the Plate.

As we gaze upon our first proof it may fill us with joy, or it may fill us with disappointment. Most probably we shall realize the latter; for, though plenty of splendid plates are made, there are few but what can be improved by a little judicious working up.

A piece of the very finest emery cloth comes in very useful for this purpose; it should be well worn. To wear it down, so that it will not scratch, it is best to tear a small strip off the sheet, and then rub the two faces together. This removes all the surface grit, and leaves the face with very little "tooth."

It is as well to practise rubbing on the back of the plate before attempting to touch the work on the face. It any scratches are made—even slight ones—the rubbing down must be repeated until the emery cloth just merely polishes the metal. When we have got the cloth into working order we may try it on the face of the plate.

When we look at our proof it will most probably look a little bit flat; something like an overexposed bromide print, or an underexposed one with prolonged development. It will look weak and muddy, and have no sparkle or brilliance.

Now, if we look at our plate we may see that there is a distinct tint in the highest lights, and that is partly the cause of the flatness in the print. The reason of this is that the etching fluid has penetrated the resist and commenced action upon the copper; and when we inked the plate the minute cavities were filled up, and part of the ink remained when we wiped it off.

The first thing to do is to brighten up the high lights. To do this we lay the piece of emery cloth upon the face of the plate, and, placing the fingers on the top of it, rub it very gently over the whole surface. No great pressure must be used, or we shall overdo it. On removing the emery cloth it will be seen that the plate already looks better; the shadows look deeper, and the high lights brighter.

At this stage it is as well to pull another proof. On comparing the second proof with the first a distinct improvement will be seen; and from this point the individual element must enter into the experiment.

The operator has selected his own subject, and must use his own judgment as to how he will treat it to obtain the final result he desires. For bringing up the high lights a burnisher will be required. A small one may be bought for a quarter, but, for very fine work, I have found a broken knitting-needle set in a handle answer admirably, and one can work on the plate as with a pencil. One thing to be careful about is that it shall be perfectly smooth. For, remember, the slightest scratch on the plate will retain ink, and it is not conducive to pleasure to see our highest lights covered with a lot of indefinite hair-lines.

For deepening the shadows a fine roulette is generally used—cost, about $1.00. For experimental purposes, one of the finest should be obtained, coarser ones can be added to the stock later, if desired. Occasionally, thread tools, or comb gravers—tools which cut several lines at one stroke—are used, but for the beginner I do not recommend them. The roulette is a very small dotted wheel set in a handle. This, when moved across the plate, indents a number of little holes, and naturally, the greater the pressure the deeper the holes.

Here, then, the amateur has the power of intensifying his shadows to any depth he likes. It will at once be seen that, with the burnisher to bring up his high lights, and the roulette to deepen his shadows, he has control over his subject, and can produce any effect he pleases; and this with the same certainty as an artist painting a picture or drawing a sketch.

There are no uncertain chemical changes to rely upon, but he puts in the work where he wants it, and there it will remain. Should his etching not have given his subject sufficient depth, a stroke with the roulette will increase it. Should it not then be deep enough, another stroke will increase it still more. Should he overdo it, a slight touch with the burnisher will lighten it again.

It is impossible to give any definite instructions for working-up, as so many factors enter into the subject. There is the subject itself, the type of plate that is produced, and, above all, the final idea that the worker has in his mind.

I think, however, that the worker will have gained sufficient insight into the subject by what I have written, and that, once having made up his mind as to what he wants, he will be able to do it with a fair amount of certainty and success. It is as well to pull a proof occasionally to see how the working-up looks on the print, and not to attempt to do the whole of it at once.

Now, it may happen that, through some cause, the etching has been a failure and all the working-up has failed to produce a passable result. If such is the case, we must get the image off our plate, and commence again. Procure a piece of fine pumice stone from the oil-shop and make one side of it flat and smooth. Also get a small block of snake stone, or Ayrstone, as it is often called. Place the plate against a stop on the workbench, and, dipping the pumice stone in water, proceed to rub down the image on the plate. The image is not very deep, and the process will not be a long one. It is as well to use plenty of water and to rub the plate down evenly all over.

When the image is entirely removed, discard the pumice stone for the Ayrstone, and this, having a finer cut on it, will remove the scratches made by the pumice stone. When all the scratches are removed, the plate may be washed and dried.

Now take the burnisher and go carefully over the whole plate, burnishing it evenly and smoothly, taking care to rub out any little hole or scratch that may be left upon the surface. When this has been done our plate is ready for our next attempt.

We have now reached the end of our subject, and I hope the working details which I have given have been sufficient to prove that the process is by no means a difficult one, and that, for experimental purposes, it need not be costly.

In conclusion, it will be as well to mention that if a great number of impressions are required from a plate—say more than a hundred—it is advisable that the plate should be steel-faced. If this is done, the plate will continue to wear well while the facing lasts, and, if necessary, the facing can be renewed. This may not be required, however, as one facing is generally good for from 5000 to 10,000 impressions, and more the ordinary amateur is not likely to want.

The unpleasing perspective of a wide-angle view is not caused by a defect in the lens, but is in the nature or position of the subject photographed, which the lens reproduces in mathematical perspective.

PERMANGANATE OF POTASSIUM.

Go to your nearest drug store and ask for ten cents' worth of potassium permanganate, rinse out one of your spare half-pint bottles, preferably one with a wide mouth (a pyrogallic acid bottle will do nicely), empty the crystals into it, and fill up with water. You have now an adjunct at hand for your dark room shelf, a panacea for many ills which is worth several times its cost to you from a time-saving point of view.

As hypo-eliminator it knows no equal. Should you at any time be short of water or for any other reason desirous of quickly finishing a negative, pour a few drops of your solution into the washing water, and allow your negative to soak in it for a time; while the water continues to lose its color, the hypo-eliminator is doing its work and oxidizing any residue that may remain in the film, but as soon as it retains its beautiful purple it has done its duty. Thus it not only chemically removes the fixing agent, but acts also as a most delicate test for the presence of the same. If you make the solution a little stronger, and acidulate with sulphuric acid, a minim or two to the half pint, you have an excellent reducing agent, and one that will give points to Farmer's reducer, for it acts more equally on the film. Again, if you are uncertain as to whether your prints are properly fixed, pour off a little of the washing water, and add one single drop of the stock solution, as before—if it retains its color, all is well; if it does not, give them a further wash. Should you be doubtful as to the cleanliness of your dishes, add a little of this powerful oxidizing agent and water, rinse well until the color has disappeared from the dish, and you can tone with security, as you have rendered the dish free of anything that is likely to confront you of a deleterious nature.

Perhaps the sink gives off an unpleasant smell, pour a few drops of this disinfectant down it, and all foul odor will cease for some time. Should you cut yourself with a sharp edge of glass, a dilute solution of the permanganate is the remedy, and don't be afraid of it, for in a dilute solution it is quite harmless to the blood stream, and it is a well-known antiseptic.

Should you suspect your drinking water of organic contamination, fill a tumbler with it, and add a single minim of the solution. If after a few minutes it still retains its color, go ahead, you can drink it with safety.—*Dr. Knott.*

TECHNIQUE.

WHAT is technique?

Technique, someone will tell you, is everything; another will tell you it is altogether a negligible quantity.

Some tell us today that in artistic work the brain and its conceptions alone are of real moment, that technique need not be considered seriously so long as the artistic instinct is freely fostered and developed.

By this we are to understand that the enthusiast will in time so perfect whatsoever is necessary in the way of technical knowledge as a natural sequence, that, in other words, technique—or as much as is required—will come. Moreover, we are told that when technique is drummed in first, it is too often at the expense of destroying the natural bent, that it curbs the artistic genius; whereas,

when the converse plan is adopted, the result is more satisfactory. There is doubtless much truth in this, though to the orthodox scientific mind it is heresy unbounded.

Nevertheless, we often find that the man who is strictly trained in the straight technical moulds never gets beyond the cramping irons of his medium, his fetters become a drag, so that his soul may not soar, his genius (if he have any) has become a matter of equations, he too often remains a mechanical creator; on the other hand, the artist whose soul is really in his art, fostered and developed freely, will of necessity learn sufficient of the science of his work from sheer desire to express himself intelligently.

There is much truth in it, though I doubt if it would be a safe doctrine for general use. Were we all enthusiasts and geniuses, no doubt it would work well, but since we are not all anything of the kind, I fear the doctrine is a dangerous one.

And, after all, there is much to be said for the thorough technical training.

I think one of the saddest sights is that of a man possessed of great artistic conception, an artistic temperament, a soul for great things, and filled with far-reaching ideas, but without the power to create, without the capacity and faculty to give his dreams form.

I have known men who were really great artists, men who had the most remarkable vision and insight coupled with a perfectly wonderful imagination, a combination such as in the hands of another might have created such things as would have been the world's talk and wonder, yet, owing to that sad restriction, the lack of power, the useless hand, these men were utterly incapable of doing anything.

These were cases where technique did *not* come.

I have known a man whose soul was one vast realm of the beautiful in music who would have cheerfully given half of the remaining years of his short life to be able to play, yet could not play, nor could he ever learn. Of what use is the clever brain, no matter how original, without the power and faculty of expression?

When the unique brain is wedded to the clever fingers, trained carefully in the ways of technique, then we have the perfect genius.

None the less it should be borne in mind that the too prolonged grinding and drudgery of technical process tends to destroy the finer fibers, the truest and broadest feelings in art. This is especially seen in the case of music, where we too often find its votaries sharply defined into two widely distinct classes—the artist and the playing machine; the one embodying all the broadest and truest in his art, the other having reduced music to a mathematical piece of exact mechanism.

To give to the world his conceptions in proper form, the artist must be able to build in tangible shape. The painter, the musician, the sculptor, the photographer, each must learn the business and the rule of his media. And I doubt seriously if the irksome training in the ways of expression ever yet spoilt a true artist, a budding genius; he must of necessity rise above the schooling, some day, if he be really great. It is the small minds that are spoilt, fretted away by the drudgery, the men who would never have achieved great things. For no matter how perfect and thorough a man's technical training, he can break the rules and soar beyond them when the time comes, if he wants.

In photography more than anything else the definitions laid down in innumerable text-books, coupled with the manufacturer's idea of perfection in plate and print, have been responsible for the crude unpictorial wealth of uninteresting work put forth as artistic.

In photography more than in anything else has the stress laid on technique been the stumbling block. In an art science whose very foundations are laid on optics and chemistry it is surely no wonder.

Until of late, and, alas! even still, many of our competition and exhibition judges have been blinded by the rules of plain technique alone, to the exclusion of the purely artistic, and we find round after round that the prizes go to a small pot-hunting section of workers whose pictures are not pictures at all, but just pleasing examples of mechanically perfect photography.

Brilliancy by no means implies perfection, and a technically perfect negative is one that fully achieves the objects aimed at in its manufacture. Two men may take their cameras to a certain spot; one may produce a perfect photograph, the other a picture.

The finest pictures produced by the camera have in many cases come from wretched negatives, as judged by the plate-makers' standard.

We do not want such a display of technique in our pictures as shall cry aloud of its virtues. When that happens, when every object is sharp and hard and brilliant, the print becomes merely an exercise. We do not go to a concert to hear an executant deliver a series of marvellously rendered scales and chromatics.

Technique has been given the front place too long, it has usurped far too much importance from teachers, writers, and judges; exhibition secretaries and the manufacturers have leagued themselves together, it would seem, to an ill end—they have helped to keep photography on the lower plane and have made it a word for ridicule.

PREPARATION OF ORIGINALS.

THE photographer who has to prepare commercial work for the engraver or lithographer will find the following notes, taken from *Penrose's Pocket-book* for 1910, of much service:

The materials necessary for retouching originals for half-tone are: An aerograph, ullmanine (white), Chinese white, raw sienna, brown madder, lampblack, Indian red, sepia, waterproof Indian ink, a piece of gum arabic, pair of compasses with pen attachment, 6-inch parallel rule, sable brushes (Nos. 2 to 8), one or two mapping pen nibs, ox-gall (in liquid or pot), a good ruling pen, maskine, amyl acetate.

Blanc d'Argent is a good white, preferred by many aerograph workers, but work done with it should be soon photographed, as this white discolors. Albanine is also a good white.

The colors should be mixed to match, as near as possible, the tints of the original to be worked up.

Use of Airbrush. Scrupulous cleanliness is always necessary; keep the pencil in the case when not in use. Pump air into the cylinder, squeezing the tube, and when sufficient pressure, release for a moment, so as to allow the dust inside the tube to blow out, before placing on the pen. Use color thinly, with not too much pressure, and go over the work several times to get a fine even grain. Use fresh color for every occasion, and change the water frequently, to avoid dust, which otherwise will cause the color to splutter. Before and after using airbrush, pass two or three lots of clean water through it, and clear away any accumulation of paint with a wet brush. To adjust the needle, just fit it

easily to the platinum point when the valve lever is as far forward as it will go. Do not jam it hard and push far in, otherwise there will be too strong an amount of color come out on just pressing down the valve. See that the rubber tubes are free from kinks or bends.

Having mixed the color in a clean saucer, transfer the receiver of the aerograph by means of a brush. Spray a little in the air before treating the original, to make sure that all the water is expelled, and the brush is working properly. Hold the aerograph about 6 inches distant from the original, press the lever down and slightly backward, move it horizontally with a gliding sweep from left to right, beginning at the top left-hand corner, and releasing the valve at the end of each journey until it has travelled in this way downward over the whole space to be covered. It is impossible to obtain fine lines or sharp edges with the airbrush; paper masks must therefore be used for this purpose; or, if the background has merely to be painted out, or large spaces stopped out, then the parts that are to be protected can be covered over with Penrose's Maskine. Now spray on the color and then remove the color from the protected parts by means of a pledget of cotton soaked in benzole. Celluloid varnish may also be used, stained with aniline dye, but this process is not suitable for collodion prints, which the celluloid varnish will dissolve. Amyl acetate is used to clean off the celluloid varnish. Thin rubber solution may be used for collodion prints, removed afterward by application of benzole.

Use ullmanine for highlights, never Chinese white, which photographs darker than paper, but use Chinese white for mixing with other colors to form a body color. To prepare a glossy surface print so that it will not reject color, rub it over with a sponge dipped in a solution of oxgall and water.

Line Drawings from Photographs. Make ordinary bromide prints, and after development harden in alum bath, dry, and then draw over this with good waterproof Indian ink. After drying, bleach in the ordinary copper bromide intensifying bath. If, after bleaching, the drawing wants further work on it, it may be well washed and redeveloped with some weak dry-plate developer; then dry and put in further drawing where necessary, and again bleach. After a good rinse, the bleached image may be fixed by passing it through the cyanide or hypo fixing bath.

Blue prints may also be converted into line drawings by drawing over the white parts with waterproof Indian ink. When dry, bleach the blue ground away with a weak solution of potassium hydrate. It is not, however, necessary to bleach away the blue image, as it will not photograph.

Bleach-out Prints. Penrose's Repro Paper is a hard, tough, smooth-surfaced paper specially prepared for this process. It is sensitized ready for use, and keeps well in a thin tube. Expose under an ordinary negative, preferably in good daylight, until a faint image is visible. It is best to make a light print, as the image becomes stronger in the after-treatment. The print is given two quick changes of water to remove the surplus chemical. When dry, the print is ready for the artist. Some artists, however, prefer a brown tone, and in this case, after the two washings, a few drops of a saturated solution of hypo is added to a third dish of water. In this the print, which is yellow, will turn to a nice brown color in half a minute. It is given a final wash and placed between blotters. After drawing upon with waterproof ink, the bleaching is done with a saturated solution of bichloride of mercury.

Original Line Drawings. These should be made on Bristol board, using the thickest kinds, 4- to 6-sheet, for the

largest drawings, and generally 3-sheet for small drawings. Pencilling on the board is to be avoided. It is best to make the sketch on thin paper and set-off on to the board with a thin sheet rubbed over with blacklead or powder-blue interposed, pressing down the outline with a hard stylus. Fill in with Higgins' waterproof Indian ink, using Gillet's pens. When dry, remove any trace of the set-off with soft bread or indiarubber. Drawings should, as a rule, be drawn larger than the required reproduction, as the lines are sharpened by reduction. The lines should be drawn sufficiently thick to permit of reduction. To ascertain effect of a drawing when reduced, examine it through a diminishing glass.

Scraper Board Drawings. Very effective originals for line reproduction, but yielding tone effects, can be made on scraper boards, which can be obtained in considerable variety by choosing from the different makes: Angerer (Austrian), Gillott (French), and Ross (American). All are similarly prepared, consisting of a stout cardboard with a heavy coating of chalk-like enamel. They are also embossed into relief lines, dots, grain, or stipple, and some have a printed pattern in black. The plain embossed boards are drawn upon by rubbing lithographic crayon (usually No. 2) over the raised lines or dots. The printed tints are also worked over with the crayon, but in this case the tint serves as a middle tone. By scraping with a sharp erasing knife, or with a toothed scraper, lighter tones or pure high lights are obtained. Solid blacks can be filled in with Indian ink. The drawings can be reproduced in reduced size, so as to make the tint finer.

Lithographic Transfers from Photographs. Any kind of photographic print, whether ferro-prussiate, P.O.P., bromide, or platinotype, may be made suitable for transfer lithographically by coating or sizing with the following preparation: water, 10 ounces; cornflour, 2 ounces; glycerine, 2 ounces. This is applied warm, a broad brush being used, and the layer should be unbroken or continuous, like a coating of varnish. When dry, the coating is transparent, and the drawing is made with pen or fine brush and lithographic writing ink, translating the light and shade of the photograph into line or stipple. When the drawing is completed, it can be transferred to lithographic stone or zinc in the ordinary way.

TO AVOID AIRBELLS IN CARBON PRINTING.

In making the final transfer in the double transfer carbon process, one is generally instructed to bring the print (on its temporary support) into contact with the piece of final support *under* water, at the same time being careful to see that no airbells are imprisoned between the two pieces of support. Now, never mind how careful one is over this operation, air very frequently does get imprisoned, showing in the final picture as more or less minute, shiny specks or blisters, especially when using the rough surface transfer papers. Although these blisters can generally be removed by soaking the print, after stripping from the temporary support, in cold water until limp, then placing in rather warm water for several minutes, and afterward rinsing in cold water, before hanging up to dry, yet this is not always successful, and, as prevention is better than cure, I recommend the following method of making the final transfer, by which I have found that airbells are far less likely to be formed, provided, of course,

that the instructions as to previously soaking the final support are thoroughly carried out. Place the squeegee board as level as possible, take the print (on its temporary support, which may be either flexible or opal) from the warm water, lay it on the board (face upward, of course), and gently pour over it sufficient warm water to just cover it without running off. Although it is not absolutely necessary, it is advisable for this purpose to have at hand in a graduate or jug some warm water which has been boiled and allowed to cool somewhat. Be careful to see that the print, as well as the temporary support, are entirely covered by the water, at the same time breaking up any airbells, should they have formed in flowing the water on. A piece of final support having been well soaked in cold water, is placed for a short time in hot water, from which it is lifted (being careful to see that no airbells are adhering to its surface) with the right hand, and one of its edges gently lowered on to a corresponding margin of the temporary support, in which position it is held firmly down by the left hand, the whole sheet then being slowly lowered across the surface of the print. This should be done with a sweeping motion, so as to drive the water in front of it, as it is lowered. Squeegee into contact, starting the first stroke at about one or two inches from the left hand, and follow the direction the paper was lowered in, viz., from left to right. Hold the paper down at its right-hand edge, and squeegee the remaining one or two inches on the left-hand side, the stroke being in the opposite direction, viz., from right to left. Lay aside, quite flat, for a few minutes to set, and then hang up to dry in the usual manner.

THE STRIPPING OF NEGATIVES.

BY CHARLES BAILEY.

THERE are constantly arising a great many occasions in which it is desirable to strip the image-bearing film of a negative from its glass support. The glass may become cracked or even badly scratched, rendering it impossible to print from the negative without showing a line; one may wish to use a certain negative for single-transfer carbon printing, or, like myself, the worker may desire to reduce the weight of a large number of glass plate negatives in order to facilitate the carrying of them from place to place. Not only is the weight greatly reduced, but the danger of breakage is practically removed. Wishing to carry about with me a large number of negatives which had been taken on 5 x 7 glass plates, I resolved to try some of the stripping methods which I had seen published in the magazines from time to time.

I tried several with poor success, and then thought that it would be advisable to employ the services of an expert commercial photographer in a large city, feeling that, possibly, I lacked the requisite amount of manipulative skill. Consulting the most highly recommended of several such experienced workers, I was advised that while the stripping of films was possible, neither he nor any other worker of whom he had knowledge would undertake such work, on account of the large proportion of failures. Certainly none of them would think of trying to strip one of their own negatives on which any great value was placed. In support of his argument he stated that even the old Eastman strip-

ping film, which was made especially for stripping purposes, baffled the ordinary worker, and that he had been the only one who had enjoyed a reputation for uniform success in the work in his city, so much so that these films had been sent to him from the Hawaiian Islands, Japan, and other countries in the days when such films were popular.

The growing weight of my load of negatives became so great that I either had to throw away a large number or spoil them in trying to strip them; I decided to again try my hand at the work. I came upon a formula in *Camera Craft* about that time which promised to come closer to success, and so started with it. The negative is first soaked in water until the film becomes swelled, requiring at least an hour in ordinary cases. The surface water is removed to prevent unequal action of the stripping solution, but without drying the swelled negative is placed in a solution composed of four parts of glycerine, thirty parts of formaldehyde, and one hundred parts of water. The dish must be rocked and the length of immersion gauged so that the maximum amount of hardening of the film will be secured without brittleness. This will require from one to five minutes. Too long an immersion makes the film brittle and liable to crack. With a trial or two one will be able to test this by means of the thumbnail used on the edge of the film. I should explain here that different brands of plates, and even the same brand of plates which have received different treatment, will behave differently throughout the several manipulations. Some negatives will require half a day's soaking in water to swell the emulsion if it has been previously dried after washing. Some will require but a short time in the solution, and others much longer. Some plates will work much better than others throughout all the operations, but if ordinary care be used, there is no need of a single failure.

When the right amount of soaking has been given in the above bath, the negative is placed aside to dry without washing. When dry, it is given a coat of celluloid varnish, allowed to again dry for about twelve hours or over night, and then given another coat. The varnish is prepared as follows: Dissolve fine, transparent celluloid in acetate of amyl until the solution is of the consistency of good, heavy syrup. I use the ordinary celluloid film well cleaned. The acetate of amyl can be procured of any wholesale drug house or ordered from one through your retail dealer. To this solution is added liquid acetone until it is about the consistency of olive oil. The formula called for one part of acetone to ten of the acetate, but I used a somewhat larger amount, in some cases as much as double. If too much is added it will "chill" the solution, as a photo-engraver would say, making the varnish slightly opaque. The negative is coated by flowing, getting it on each time as thickly as possible, and laying the plate on a levelling stand to dry. A drawing board supported on three wedges can be made level very quickly if no level table is at hand. The last coating of varnish being dry, the film is cut all around the edge, using a pocket knife and ruler, about an eighth of an inch inside, when by raising one corner with the point of the knife the film can be slowly drawn off the glass.

Most of my negatives I stripped by this method, but it took considerable time, and the strong, yet not unpleasant, odor of the amyl scented the whole house. Several, however, refused to strip, although the varnish came off in a nice sheet of celluloid. The film of these negatives would not even start at the corners. I peeled all the varnish off of these obstinate cases and laid them aside for further treatment after

finishing those that behaved as they should. Coming to them later, I first took some old and spoiled Kodoid negatives and reduced out all the silver with the ordinary Farmer's or red prussiate and hypo reducer. The refractory plates were then immersed in a dilute hydrofluoric acid bath, which lifted them in a hurry, after which they were transferred to the Kodoid films and allowed to dry. This hydrofluoric acid is very strong, and should be handled carefully, so as not to inhale too much of the fumes. It will be supplied in a lead or wax bottle, and the solution, though quite dilute for use, should be used in a rubber tray. A few of these negatives peeled off the celluloid films when dry, but most of them are sticking in perfect contact today. After this I had stripped films on celluloid varnish, on celluloid films, and some without any support. Had I used unexposed Kodoids with the silver fixed out in a plain hypo bath, as I afterward did when a dealer offered me some that had passed the age limit, at a very low price, there would have been no trouble. The ones which I first used had been subjected to an alum bath, which hardened the films and lessened their sticking qualities.

My success with the work, together with my desire to avoid the scent of the amyl acetate and the length of time required, encouraged me to try other plans, with the result that I am today using the following method, which is the best that I have used after trying a great many experiments. I immerse the negative direct from the final washing after developing and fixing in a solution as follows:

Water	20 ounces.
Formaldehyde	1 ounce.
Sodium carbonate	½ ounce.
Glycerine	2 drams.

If the negative is dry it should be soaked as advised with the other process. The immersion in the bath should be as before stated, testing in the same way with the thumb-nail. Transfer to a weak bath of hydrofluoric acid, where the film will float off in a short time. The film can sometimes be assisted to strip, if it should show a tendency to stick in places, owing to a slight roughness of the glass at such points, by passing a silk thread between the film and the glass. For this purpose, I use a thin strip of cane with the thread fastened at each end so as to bend the cane. When the film floats off it is placed in a tray of clean water, where it can be again floated on to a gelatine skin, celluloid film, or glass plate, as required, and then drained and dried. There is no enlargement or contraction of the film after being hardened in the formaldehyde bath. The acid bath is made by adding two drops of the hydrofluoric acid to each ounce of water.

In stripping a film from a cracked negative, the film remaining intact, I have made it my practice to first cement a plate of the same size to the back of the broken negative with Canada balsam or rubber solution. This might not be absolutely necessary, but I have experimented only with such negatives as I valued, and fearing that neglecting to do this, the solution working up through the crack in the glass might give unequal action on that part of that film over the crack and so cause trouble. This fear might be groundless. I have never tried to strip broken negatives in which the film was also severed at the break, but it might be possible to do even this if the pieces are first cemented to another plate at the back and then the coating of celluloid varnish carefully given. The swelling of the film, as advised, might be sufficient to almost, if not entirely, close the break in the film, and the varnish would hold the pieces together during the stripping process. The plan is worthy of a trial.

By Earle, New York

By Earle, New York

By Earle, New York

By Earle, New York

By Earle, New York

By Earle, New York

RITA SACCHETTO
(In four poses)

By Franz Grainer, Munich

1. Pablo Sarasate

Illustrating Sidney Allan's Article

2. Joe
3. Arrangement in Black and Gray
4. At the Piano
5. The White Girl

Illustrating Sidney Allan's Article

6. Frederick Leyland
7. The Fur Jacket
8. Self Portrait
9. Princess of the Porcelain Land

Illustrating Sidney Allan's Article

MASTERS IN PORTRAITURE—JAMES McNEIL WHISTLER.

BY SIDNEY ALLAN.

MANY claim greatness. Comparatively few achieve it. Whistler was one of the few who "arrived" early at the threshold of fame. He enjoyed an international reputation—already thirty years ago—at the age of forty-six. Three nations—England, France, and America—have claimed him as their own. Whistler was at all times a shrewd advertiser, and knew the value of such disputes. His arrogant pose was half genuine, half calculation. It proved an important vehicle toward his material success.

As a painter he was equally unique. He combined the fanaticism of a perfect technique with the search for truth and a desire to create new sensations, and expressed our breathless modern life, with all its intricate moods. His art revelled in the realms of imagination unknown to Manet's realism, and Sargent's pyrotechnical displays of technique look crude and barbarous in comparison to Whistler's unobtrusive, unerring brushwork, which mastered all the optical illusions of this world with wizard-like dexterity.

He created a style for himself, and his space and color arrangements have exerted a deep and lasting influence on modern painting. Whether he is as great a painter as some critics make him —whether he is as "big" as Franz Hals, for instance—is still a matter of discussion. He will always live in the history of art as being the first man who combined the beauties of Eastern design with the principles of Western art. The mysterious atmospheres of some of his canvases, from which solid forms emerge or recede into, is a poetic translation of Japanese suggestiveness—which does not care to create an illusion, but rather suggests it. The whole tonal school of pictorial photography has been influenced by his "Pablo Sarasate" (Fig. 1), now at the Carnegie Art Institute, Pittsburg.

Here we have the true Whistler atmosphere, the blurred contour of the violinist's figure, which melts into the background without losing its form, the elimination of all unnecessary details and accessories, and the concentration of light on the face, shirtfront, hands and cuffs. It is astonishing how few bright planes there are in most of Whistler's portraits (viz., Fig. 6 and 7). In the "Sarasate" the lighted planes scarcely occupy one-thirtieth part of the picture. The rest is all darkness, except the vague shimmer on the floor, suggesting the footlight on the platform of the concert hall. A light floor is one of the leading characteristics of his single standing figures. It helps to suggest space. Observe how wonderfully space is suggested in Fig. 1. There is depth in the background; it is not opaque like most backgrounds but vibrant in its emptiness. The figure is standing in space. One might think at first that this is brought about by the smallness of the figure.

But the same can be noticed in the Leyland portrait and "The Fur Jacket" (Figs. 6 and 7). In both pictures the figure occupies the entire length of the canvas, and yet is enveloped in atmosphere. I believe this is largely due to the vagueness of outline and the accentuation of the principal points of the human form by touches of light, as the highlight on the shoe, the hand on the hip, and the overcoat to the right. They bring out the form without any directness of line. Also the shadow helps.

In Fig. 7 we have an extreme example of dark tonality. It has become much more indistinct in the reproduction, but even in the original, with its slight differentiation of colors, it is vague enough to give joy to any pictorialist of the Buffalo school. As usually the imitators—painters as well as photographers—have exaggerated the extreme rather than the normal aspect of the painter's art.

The etching of "Joe," Fig. 2, is interesting as a space arrangement. It shows how a head can fill almost the entire area of a picture without becoming obtrusive or looking too large. The line work is excellent in its purity of design and apparent carelessness. If photographers who insist on manipulating their plates with etching tools would use lines of equal skill and precision, no doubt less objection would be raised to their efforts.

"At the Piano" was the first painting Whistler exhibited in England. I have rarely seen a modern instance treated with more charm and simplicity. The dark silhouette of the mother is beautifully balanced by the white form of the little girl. There is an astonishingly large number of horizontal lines in the composition, but somehow they are not noticed, at least they do not offend the eye. I believe the diagnonal tendency of the figures counteracts all other lines. One peculiarity of Whistler's interiors and backgrounds is that they invariably represent a straight wall (viz., Figs. 1, 3, 4, 5, 6, and 9). He never indulged in perspective arrangements. His aim was breadth and simplicity, and he avoided all cheap pictorial effect.

In his earlier career he occasionally made use of accessories, as in Figs. 5 and 9. "The White Girl" is to me one of his weakest compositions. The figure is rather stiff and too high up in the picture. The carpeted floor looks as if it were sloping. The bottom of the dress is too distinct. The same could be said of the whole contour; the lines are not sufficiently graceful to permit such clearness of line.

Fig. 9 is much better, but too much like a Japanese print. It is really an imitation of a Japanese print painted in the Western style, which represents objects round and in relief, and not merely in flat tints. The placing of the screen with the face looming above it is as peculiar as it is attractive, but it is an arrangement that is strictly Japanese in character. Whistler began with painting detail and only gradually learnt to see life in a broader and more mysterious manner. In his later period he avoided detail as much as possible, and only occasionally accentuated it here or there as a note of contrast to the larger planes (viz., the girl's dress and shoes in Fig. 4).

The "Self Portrait" is a good example of a dark against dark arrangement. The face has a few strong highlights, the remainder of it is in middle tints, while the rest of the figure—the hat, hair, and bust are darker than the background. The space arrangement and position of the head are clever, but the shape of the bust is awkward and, I fear, slightly contorted.

In his masterpiece, the portrait of his mother, at the Luxembourg Galleries, Paris (Fig. 3), he is at his best. The simple pose, the delicate way of handling detail in the lace cap and hands, the masterly space arrangement, produced largely by the rectangular curtain and silhouette of the figure, the fine sense of values, and the clever way in which he utilized two frames to break the monotony of the background, all have been commented upon a thousand times. No modern painting has been more talked about and more frequently imitated than this one. But none of the adaptations has reached or surpassed its "pathos and tender depth of expression."

Technically, it is perfect. It is not the technique, however, which principally interests us in this picture.

Just as in his "Sarasate" Whistler attempted in his "Mother" to give us the whole atmosphere that surrounds a personality.

He does not merely represent his old mother. He endowed the old woman, sitting pensively in a gray interior, with one of the noblest and mightiest emotions the human soul is capable of—the reverence and calm we feel in the presence of our own aging mother. And with this large and mighty feeling, in which all discords of mannerisms are dissolved, and by the tonic values of two ordinary dull colors, he succeeded in writing an epic of superb breadth and beauty—a symbol of the mother of all ages and all lands, slowly aging as she sits pensively amidst the monotonous colors of modern life. Nothing simpler and more dignified has been created in modern art.

CONCERNING BACKGROUNDS.

THE landscape background, which forms a part of the "plant" of every photographer, has one origin, and one only, writes Mr. F. C. Tilney, in the *British Journal of Photography*. It is derived theoretically, and practically also, from the backgrounds which set off the portraits of the great painters, and particularly those of England in the eighteenth century. In the face of this fact, it is a little beside the mark for photographers to treat "old masters" as though they were something hopelessly out of the range of practical usefulness as standards or criteria. The photographer should swear by them. I have asserted in other places, and I do so now once more, that the photographer who wishes to acquire style and distinction can do no better than "soak in" the fine portraits in our London and provincial galleries. Not to do so, and yet blindly and ignorantly to buy his 8 x 8 landscape background, use it in a perfunctory way, and think that he is safely independent of all cant about art, is simply to prove that he is not up to his work; that he is inefficient in the education his profession demands. Many—most, in fact—of the backgrounds of the profession are *copies* of those of famous pictures. They may have been copied and recopied to the extent of losing all the charm and freshness of their prototypes; but they are descendants in direct line, nevertheless.

The Thoughtless Use of the Background.

Let us not say that "Gainsboroughs and Vandycks and all that sort of thing" is not what we want—for, obviously, it is just exactly the thing we *do* want, if we can get it. Can we get it? That is the question. I think we can if we will but see to it that the effect the sitter makes in front of the painted background is the same kind of thing that the painter got when he put the original of our background behind his sitter. The photographer is apt to think that his background "will do"—whatever may happen to be before it. That is just where he does not take the thing seriously enough. It must play many parts in his studio, but its original played but one—the one for which it was designed. It was made dark in parts for the relief of the light-clad sitter; it was light in parts so that it might amplify the dominating mass made by the figure. Its lines were imposed by those of the figure. A photographer who thoroughly appreciated the meaning of such classic backgrounds would never be

guilty of a print showing a lady in white with an elaborate background of which all the tones were antagonistically dark, and it would behoove him to acquire the principles that led the masters to paint their backgrounds as they did, so that he, having copies ready done, should know how best to employ them.

Painters' Backgrounds Are Environments.

The desirable thing is that the setting should *not look like a background*, but like an environment, coming forward here, retiring there. It should, at one part, engulf the figure in tones as dense as the figure's, at another point it should stand right away and leave the figure distinct. Too often the very word "background" seems to suggest to the operator the treatment it gets. It is thought of merely as something before which the figure should stand.

This leads us to the chief matter characteristic of the painted background. It is really the matter which makes the great difference between painting and photography as a medium for portraiture, and is simply this, that in a very large number of cases the landscape background looks what it is when photographed—a painted affair, flat, and in one plane; whereas, when painted, it shares the roundness of the rest of the subject. Perhaps it is on account of this irretrievable defect that many men of taste have abjured altogether the distempered cloth, for although backgrounds of this kind may be cleverly enough painted, and look remarkably well in the print at times, yet they can never be said to convince. This is largely because they are used in a timorous and shamefaced way, suppressed more often than not into flatness or mere suggestion, and allowed to go out of focus. The landscape backgrounds of the old masters are never nebulous; but here, again, it may be that the photographer is not entirely to blame, for a frank and full pictorial setting in a long scale of tones would not bear the repetition that the nebulous variety would sustain.

The poor photographer has much to contend with. There is another drawback to the use of the studio landscape background which denies it the charming effects common to painted portraits. In the studio the sitter is placed in *front* of any pictured accessories, and will never look *among* them, as a painter can make him appear. There is a popular and beautiful picture by Fragonard, in the Wallace collection. It is called "A Lady Carving Her Name." How much could a photographer get of the grace and charm of the lady's action without something as tangible as herself with which to effect the pose? To accomplish this a "property" tree would have to be employed, and all property things are the downfall of artistic photography. One step further would land us in such trivialties as the goat-skin rug doing duty for grass—an absurdity not to be tolerated for an instant. *Solid realities* are the most welcome of helps; but *property solids* are despicable.

Accessories.

Only when the rare occasion presents itself of photographing the sitter at home, can accessories be taken into account, and then much must depend upon what material is offered by park, garden, paddock, and so forth.

The Open-air Studio.

What, then, is the alternative? Must such effects be abandoned altogether? At the risk of being thought utterly mad, I hazard a wild suggestion, impossible, no doubt, to the London suburban professional, but surely not so to the pro-

vincial photographer or to the colonial who is able to do things on a sumptuous scale. Why not the open-air studio? What delightful effects would not be possible with a few square yards of natural ground rented with the premises? A piece of turf or sandy bank, a large tree, and a few thin ones, with a peep of fields or common for distance! The old masters might then be met upon an equal footing. It would be easy in some lights to capture such a charming effect as the head in tone against the bright distance, such as is the theme of the Fragonard, and a nobler one it would be difficult to invent. A real rustic seat, a tree log, even a boulder—these would be inexpensive and valuable accessories —and a fine specialty might be made of equestrian portraits; to say nothing of dogs or children's ponies and donkeys. At any rate, the sitter could be in a real environment instead of so obviously standing in front of a painted scene as present methods seem invariably to entail.

The Dangers of Perspective.

Lastly, the perspective in the open-air studio would be above suspicion. The use of the painted background not only renders it usually beneath suspicion, but beneath contempt. Most backgrounds of the landscape class are too small in scale, or else they are thoughtlessly managed, so that the sitter appears gigantic. Pathways, flowers, stiles, and other things that call up standards of measurement in the mind had better be avoided, for it is difficult to bear out the sensation of distance between the sitter and the background, even when the two are relatively placed as they should be to make things harmonize in scale. If the sitter is too close, he reminds one of the music-hall star who attempts to hang his hat upon a distant church spire, and he is sure to cast a shadow over the pictured near and the pictured far alike. The last point to be mentioned in the use of pictorial backgrounds is that of the horizon. Although the cloth may not actually show an horizon, one is usually suggested, nevertheless, even to the uninitiated in these matters. The lens will represent the spectator's eye, and that is always on a level with the horizon. The sitter's eye may be anywhere, of course, and it is usually and rightly above the level of that of the spectator. I am not sure that a convincing effect would not be secured by employing a background with a little piece of open sea depicted, so long as the actual horizon was made to come upon the same level as the lens. If the horizon is right, the ground will take care of itself, appearing high or low, according to circumstances. The low horizon gives a monumental and decorative dignity to the figure; but it places the point of sight perhaps as low as the knees, which may be awkward and undesirable in photography. A high horizon ought to make us appear to be looking down upon the figure, which is successful only upon rare occasions. With a high horizon we feel we want to place the figure up on something—a bank, a terrace, or steps—only then comes the question of judicious trimming of the print at the bottom, perhaps, which simply lowers our horizon again in relation to the figure. So, when all is said and done, the landscape cloth is a device full of artistic pitfalls, and has little or nothing to recommend it.

A lens that is stuck in its flange can be loosened by applying a drop or two of paraffin oil to the shoulder. The oil should be allowed to soak in for a few hours.

A scratch, or even a crack, right across a lens may do it no perceptible harm, but a dulling of the surface due to improper cleaning will materially injure the instrument.

FASHION IN PORTRAITURE.

THERE are fashions in portrait photography as in most things. The great rules of art are permanent, but the little ones are constantly changing. In the following notes it must not be assumed that I am reviewing the various fashions in portraiture, as though each had had its definite period. That would be impossible, for many today are using methods which others discarded years ago. And, again, of two fashions it may be quite a matter of opinion as to which is the more in accordance with the present-day ideal.

I have before me as I write a photograph of an elderly gentleman, taken, at a guess, in the sixties. It is quite easy to imagine how this faded portrait was produced, without knowing anything of the sitter. He is a fine-looking old gentleman, and doubtless both he and his wife are fully conscious of the fact. So, after a week of pleasant discussion, one morning he arrays himself in his best, well brushed for the occasion, ties his cravat with more than usual care, polishes his silk hat and the head of his gold-knobbed cane, and then, after a critical survey by his good lady, he marches sedately to the studio of the favored artist. That gentleman points him to a mirror, where he may rearrange any part of his attire that has been disturbed by his walk, and smooth down the rebellious hairs that have sprung up as he removed his hat. That done, he sits in a handsomely carved chair, and rests his elbow on a handsomely carved table; there are handsome curtains behind him, and a handsome rug at his feet. When the hat and cane, with the gold knob toward the lens, are arranged on the table, all is ready. And what is the result? The sitter's feet, his knees, his hat, and the carved leg of the table are among the most conspicuous things in the picture. Another photograph shows a lady in full evening dress, with a roll of paper in her hand, a tiger skin beneath her feet, an elaborately carved chair at her right, a plant on the other side, and *a landscape behind her.* Yet another is of two girls, one sitting in a swing, the other standing beside her; behind them are heavy clouds, suggestive of an approaching thunderstorm. Here is a boy leaning upon the back of a heavy, handsome chair; his face is in good focus, but the chair is in better, and as the light reflects from its leather and polished mahogany, it is more conspicuous than anything else; the boy's legs, crossed awkwardly, are out of focus in the background.

All these early portraits are full-lengths, but some far-seeing worker must have discovered that the feet are rarely beautiful, or even interesting. So we have next some three-quarter and half-length portraits. Still the same fault prevails—incongruous and too elaborate accessories. A boy leans upon a garden wall, and behind him stretches a beautiful park, but the wall is obviously a wood and plush structure. To this phase also belong the young men who were taken with silk hats in their hands, and looking very unhappy in their Sunday clothes; and the ladies sitting in rustic seats in non-rustic surroundings, or leaning over balconies reading letters. A favorite method with children seems to have been to place them upon a curious erection of branches and bark, with the inevitable plant either behind them or beneath their feet. No wonder they generally looked frightened.

Coming now to vignettes, the faults are fewer and less glaring. They mostly arise from unsuitable backgrounds and careless vignetting with makeshift appliances. In many pictures the shadows

of the dress are printed quite an inch further than the high lights. I have before me four portraits, each with a curiously shaped cloud behind the sitter's head. In one a pear-shaped vignetter has been used, and the effect produced is of a shadow behind the sitter's head, wrong in shape and false to the lighting of the face. Another shows a lady looking like a Circassian beauty, but on closer inspection one discovers that it is not all hair, but a halo produced by a circular vignetter on a background too dark for the purpose. In a third picture the sitter seems to be resting against an egg-shaped cloud. The last and least in artistic photograph is of a lady; the top of her head has a white background, but round her shoulders clusters a dark cloud, and, as her head is thrown back, and she is looking upward, it is impossible to resist the idea that above her is glorious day, while beneath her feet is black night, and that she is rising "out of the darkness into the light." The moral seems to be that backgrounds for vignetting must be almost white, and not dark gray.

The ordinary method of the present-day professional seems to consist of a complete suppression of non-essentials. He uses a background so delicately tinted that it cannot possibly suggest clouds, and takes the head and shoulders only. Generally, he makes a vignetted picture, but even if he does not, all he has in his portrait of a man besides the face is the collar, necktie, and a few square inches of coat. With women, many photographers get rid of still more of the non-essential. By taking a lady in a low-necked dress and hiding the bodice with an abundance of chiffon, the shoulders appear to rise out of a mass of airy material, which is even less likely to obtrude than the simplest of dresses.

As a portrait, a picture in which it is recognized that the face is the thing and nothing is allowed even the remotest chance of taking the attention from it, the modern vignette is perfect, and yet—Let us look at the old-fashioned portrait again for a few minutes, forgetting its many faults. This may be said for it: it conveys the sitter as he was, or as he wished to appear. There is something of his character in the punctilious neatness of his attire, and his curious, upright attitude—although the latter is partly due, doubtless, to an uncomfortable head-rest. And, again, if we could persuade ourselves that the portrait was taken in his own home, we might take it as giving some inkling of the style in which he lived. This much may be said for the early photograph—it conveys more to us than the vignettes of today will to those who look at them forty years hence. The older picture has atmosphere (in the artistic, not the scientific sense); but unfortunately it is produced by false and elaborate arrangements of the photographer, instead of being the natural surroundings of the sitter.

This comparison brings us to what I choose to call the newest school of portrait photographers—those who attempt to convey more of their sitters than mere outer lineaments, or to add some charm to their pictures beyond that of straightforward portraits.

There are photographers, women many of them, who have made successes for themselves by catching child subjects in their brightest moments, by adding the charm of innocence and happiness to little faces that the ordinary worker would portray looking serious and perhaps even frightened. And with women too, the new photographer contrives, partly by carefully chosen methods of lighting, partly by some magnetic gift in managing the sitter, to produce a portrait with all the charms of the original, and perhaps a little more.

But it is with men that the new pho-

tographer finds the greatest scope, posing lighting, and managing them to get, not the usual faint, meaningless smile, but an expression which conveys something of the sitter's character. It may be said at once that the photographer who can do these things is born, not made. His work is not to be seen in abundance in the windows of even the best professional photographers, though here and there one sees a portrait that appears to have been taken in the best possible way.

The best portraits to be seen are often those of actors, possibly because these sitters are masters of pose and expression. Let me quote one or two examples which are to be seen everywhere on picture postcards. There is a portrait of the bright, mercurial comedian who skips about the stage like a schoolboy. This photograph is a full-face, in perfect focus; the face appears to be thrust forward a little, the eyes are wide open and staring straight out of the picture, while the lips are slightly parted, as though the sitter were about to speak. Another example is of a famous tragedian, whose forte appears to lie in the direction of sorrow and self-renunciation. In this case the profile has been taken with the head thrown back a little; the face is slightly out of focus, and the background is very dark, all which helps the expression of dreamy sadness which the actor has assumed. For a third example, take the well-known photograph of the late Sir Henry Irving, full-face, with the head resting upon the hand. Here, again, the picture is in sharp focus; otherwise the sad, penetrating look of the eyes would be lost.

In portraying women and children, then, the aim should be to get into the picture the charm which is natural to the sex or age of the sitter, and which, incidentally, may be wanting or not in evidence in the particular subject with which one has to deal. With men sitters the object is slightly different—one wants character, not charm. It has been said of Shakespeare that he has no heroes, only heroines; it would perhaps be more correct to say that, with one or two exceptions, his women are charming pictures, but his men are exquisitely accurate portraits. To return to photography, it may be said that an ideal portrait of a man may or may not be in very sharp focus, according to the subject, but the ideal portrait of a woman is never really sharp.

Take a keen business man in sharp focus, thus giving his face an appearance of alertness; but if you have to deal with the reflective face of a student, it would probably be better slightly out of focus. Take an old man with all his wrinkles, and a young woman with none of hers. Avoid accessories that convey a wrong impression.

Often the subject is against the would-be truthful and artistic photographer in his desire to produce the right thing. You find a gardener or a ploughman at his work, and he is so typical and picturesque that you suggest photographing him, whereupon he immediately regrets that he is not wearing his Sunday clothes. In them he believes he looks something like a gentleman, and he would rather appear as a counterfeit gentleman than as a genuine gardener or ploughman. So with children. You meet a little girl with tousled hair and disordered pinafore, a charming picture of happy, romping, child-like carelessness, and, as she is, a delightful subject. But you will get no picture worth having if the mother is anywhere near. She will insist on combing the dishevelled hair and straightening the pinafore, or perhaps, worse still, replacing it with a clean one. She cares nothing for the natural state of things; her ideal (for show purposes, at any rate) is an unnaturally clean and uncomfortably tidy child.—*A. W. Bromely.*

COMPLETE FIXING OF A PRINT.

One of the most important stages in the production of a negative or of a print is the fixing; and, unlike most of the other operations we perform in photography, there is nothing to indicate when it has been carried out properly. It is quite a mistake to suppose that a negative is fixed when all the white appearance has vanished from the glass side of it. The disappearance of this unaltered silver bromide marks the first stage, but only the first stage, of fixing, and we must allow the negative to remain in the hypo for some time longer; the usual advice being to leave it in for as long again as it has taken for the whiteness to vanish. This is a safe guide; and if such a rule is adhered to there will be no fear of the negatives being insufficiently fixed. But with prints we have no such an indication.

The time taken for a print to be properly fixed can only be ascertained by trial; and as, if it were not fully fixed, the trial would spoil the print, the time is ascertained for us by the makers of the paper we are using, and is always stated in the instructions. If those are carefully followed, our prints also will be fully fixed.

A few words of caution on the subject of following these instructions may be useful. If they state that the prints are to be placed for fifteen minutes in a solution of hypo of a strength of two ounces to the pint, it does not follow that if they are placed in a solution of four ounces to the pint that they will be fully fixed in ten minutes or some other time.

In fact, a strong solution of hypo does not fix so quickly as a weak one, provided it is not too weak. It is quite easy to see why this should be.

Everyone who has made up a solution of hypo must have noticed that as the strong solution mixes with water, although both liquids are colorless, it is quite easy to distinguish them by a curious streakiness which manifests itself between them, showing that they are liquids of different densities. The hypo solution is much denser than the water. Now, before it can do its work in the film of the negative or paper it has got to make its way through the pores of the gelatine in which the image is buried, and as the strong hypo solution is denser than water or than a weak solution, it takes longer to make its way into the film, and, having dissolved the silver bromide, to make its way out again. Therefore it may happen that a strong solution of hypo will actually take longer to fix a print or plate than a weak solution. It is important, therefore, not only to see that the prints are left in the hypo for the time recommended by the makers of the paper, but also that the hypo solution is, approximately at least, of the strength that they recommend.

Another important point in connection with complete fixation, especially at this time of year, is that the colder the hypo the longer it takes to act. The fixing bath, for this reason, should never be used as soon as it is mixed up, since, as is well known, the act of dissolving hypo in water lowers the temperature very greatly. It should be dissolved at least some hours before it is wanted, even in summer time. In winter, the hypo solution should be placed in a warm room for an hour or so before it is used, if there is not a fire in the ordinary course in the room in which it is kept. The temperature of the fixing bath should not be less than 65° F. A thermometer is not a necessity, however, if the precaution just named is observed.

More important than anything else, so far as the proper fixing of prints is

concerned, is to secure a proper access of the hypo to them. The time named by the makers is that which a print would require if placed all by itself in a dish of the hypo solution; and though there is no need for a separate dish for each print, we must see to it that the hypo has as free access to the prints as it would do if each had its own dish. One way of doing this is to have dishes large enough to take all the prints, without allowing them to overlap each other in any way.

A better plan than this is to have them one on top of the other, but to keep them moving all the time, taking the bottom print out and putting it on top, and so on. The advantage of this method is that, while the hypo gets to them very well, there is very little chance of a print floating on the top of the hypo, with its wet surface exposed to the air, as it may do if left in a dish by itself for some time. Developed prints, such as gaslight or bromide prints, are very apt to become stained and reduced to the more delicate tones by the combined action of air, moisture, and hypo in this way, which the method of fixing them while keeping them moving will prevent.

I have said that the only way of finding out if a print is fixed or not will spoil it, if it should prove to be unfixed. The method is one anyone can apply for himself. The print about which there is any doubt must first be thoroughly washed to make sure that the hypo is got rid of, and is then placed in a weak solution of sodium sulphide, such as is used for the toning of bromide prints. If it remains unaltered, we may be sure that the print was at least properly fixed. If any marks or stains appear on it in the sulphide bath, it is an indication that wherever those stains occur fixation was incomplete.

The term "fixing bath" is sometimes applied to the solution of alum in which a carbon print is placed after development, and to the acid baths in platinum printing, but in both cases this is a mistake. The alum or the acid is necessary to complete the process, but in neither case is it in any sense a parallel with the hypo bath, and in neither case does it have any bearing on the true permanence of the print.

Proper and complete fixing is quite as important as thorough washing, and with the precautions set forth above it should be easily secured.—*Philip Rourke in Photography.*

MISTAKES I HAVE MADE.

[THE following somewhat lengthy paper, read by Mr. James Bailee before the Edinburgh Photographic Society, is the longest and frankest list of mistakes made and acknowledged by one man we have yet come across in our editorial experience. Mr. Bailee is to be thanked for telling the tale of his mistakes for the benefit of his fellow-photographers.—ED. W. P. M.]

Mistakes are of two kinds—those caused (1) by want of knowledge, and (2) by carelessness. Beginners are usually very careful, and their mistakes and failures are caused chiefly by want of knowledge. The longer we practise the less careful we get. The great thing is to form correct habits at first, as it is not easy to unlearn a bad one. I had a good many to unlearn, as you will hear.

I started photography with a ½-plate camera outfit. The management of the camera seemed simplicity itself, but I soon discovered that I could easily make a few *simple* mistakes that spoiled what might have been a good negative. Once

I had my camera blown over, through not spreading the legs wide enough, and had the ground glass broken. I focussed at full aperture, which was quite right, but I forgot to stop the lens down before making the exposure. I several times made a double exposure on same plate, often caused by thinking that I had not drawn the slide at the first exposure, when I had done so all right. I used to put different plates in my slides. This led me to expose out of the proper order, and was a fruitful source of double exposure; this practice I have stopped. I once elaborately posed a group, but forgot to draw the slide, and wondered for about five minutes why the plate refused to develop; even yet my subjects refuse to believe that it was unintentional.

In taking time exposures I have had quite a number of plates spoiled by holding the cap in my warm hand during focussing. When placed on the hood, moisture was at once condensed on the cold lens, and the resulting picture was hopelessly blurred. It is best to attach the cap to the lens with a thread, as this also keeps it from getting lost. When using a wide-angle lens in my half-plate camera, and especially when using the rising front, I have had quite a number of plates spoiled through the narrower part of the bellows cutting off the corners of the picture. To prevent this, the front part of the bellows should be pulled forward toward the lens and fastened with an elastic band or piece of string. I had some plates spoiled at first by my camera not having been properly levelled, but I put this all right by attaching a spirit level to the back of my camera.

Nine-tenths of the plates I exposed were snapshots, and many of my mistakes arose from the careless use of my Thornton Pickhard shutter. It was the old pattern, and several times on a blowy day the string caught on something and spoiled the exposure. Many a time after focussing with the shutter open, I have drawn or drew my dark slide without pulling up the blind to "set," and thus made an unsteady time exposure. By handling the shutter carelessly, I have changed it from time to instantaneous, and *vice versa*, and only discovered the mistake when I pressed the ball. I am conscious of the ridiculous figure I have cut (especially on a blowy day) trying to keep my focussing cloth on. I have remedied this mistake by having buttonholes made in it. I can now fix it to the camera and can do with less cloth.

On very sunny days I have had a plate or two spoiled by under exposure of my dark slide to the sunlight. In working a hand camera which I bought two or three years ago, I have been much troubled by this fault. I had quite a number of plates light-struck, which puzzled many of the experts. I found the cause to be that my slides were not painted dead black inside, and reflected light from the sides. I have had the same troubles with the Thornton Pickhard shutter of my hand camera, with the additional mistakes of altering the speed and forgetting to alter it back again. In fixing up my camera I have neglected to put it to the proper focus, or have shifted the focus accidentally.

I have put on my view finder carelessly and inclined it to one side, or have knocked it accidentally off the straight without noticing that I had done so, with the result that I did not get the picture that I intended. I have fixed my rising front and have omitted to lower it for the next exposure.

The most serious mistake I have made with both cameras has been making exposures, especially snapshots, on unsuitable days, or too late in the day. I have exposed six to ten plates in one day, and all underexposed and consequently spoiled. The light is so deceptive on a

dull day or late at night that an exposure meter of some kind is almost necessary. I once made an exposure on a very dull day. The meter showed thirty seconds to be the correct exposure. I gave it eight seconds and got a fair negative, though a little underexposed. The most suitable day for hand-camera work is one with sunshine and shadow, with good clouds. Time exposures may be reserved for autumn and winter. I have wasted a large number of plates by trying to take moving objects with too slow a speed of shutter. For several years I made the mistake of working with unbacked plates. I am now thoroughly convinced that for almost any class of work a backed plate is a great advantage.

When opening a box of plates I made the mistake of throwing away the outside wrapper. I now cut the end off it, and it then draws off and on and prevents the box being opened unintentionally. As regards the keeping of exposed plates, I always pack them in the original boxes face to face. I have spoiled plates by not dusting them and allowing particles of gritty matter to get between them, and also by omitting to wedge them in tightly so as to prevent them rubbing against each other. I once placed a piece of paper between every two plates; when developed, the mark of the paper was quite distinct. I once put a plate in a box face downward; it was a failure when developed. Another time I put the face of a plate against the backing of another plate. It came up all marked in the developer. I have lost many a good negative by getting it scratched or marred. I have not had one wasted since I began keeping them in envelopes, which may be had for a few pence per 100.

As regards development of plates, the mistakes I have made are numberless. First, I used to have a high table and stood all the time; later, I got a lower table, at which I can work sitting. Then I did not see that the top of my table was perfectly horizontal, and my dishes not being level, the solutions ran to one side, leaving part of the negative dry either in the developer or in the hypo. I had quite a number of plates spoiled through a little false economy in the quantity of developer or hypo used. I also made the mistake of not shaking up the hypo before using it. At first I started with a small red fabric lamp, and had no trouble with it except that the night lights sometimes went out or burned very low. Some years ago I got a paraffin lamp with red glass, and then my troubles began. I made negatives with a strip down the side or across the top that did not develop to the same density as the rest of it. I showed the spoiled negative to a number of experienced photographers, but they were all puzzled. After a bit I discovered that my lamp was fogging the plates; the strip that was less dense was the part protected by the side of the developing dish. I put a sheet of red fabric in front of my red glass, and always turn my light up to the maximum power (as far as it will go without smoking), and have got rid of all light fog. If you don't get clear glass rebates on all your negatives, then, probably your light is not safe, or there is some fault in your dark slides. In arranging my dishes, I made the mistake of placing my hypo at the wrong side, and in lifting a plate sometimes a drop of hypo fell unnoticed into the developer, or on some dish or plate, with disastrous results. I now put two or three dishes of hypo on the right side, close to the water. I change the plate from one dish of hypo to the other, which helps to remove any excess of stain. The alum bath I discontinued for a time, but found a hypo developed negative was all the better of it. I have made the mistake of not having the alum properly dissolved, and not getting it to come off the negative by the ordinary washing. Some-

times this white precipitate was formed on the plate through the plate not having been rinsed enough before being put in the alum. I now wash the plate for half an hour or more before placing it in the alum.

I spoiled many plates by lifting them carelessly and marking them with my fingers. Now I lift up a plate with my knife till I can catch it by the edges. At first I put my knife in the hypo to lift a plate, and then made the mistake of using it similarly in the developer. Now I put my right hand only into the hypo and lift the plate by the edges with my left hand. In rubbing off the back with a damp sponge I have marked it with my fingers or carelessly sparked water on a plate lying in the developing dish. After getting a plate thus accidentally wet, I have omitted to wet the whole of it instantly with clean water. The wet spot developed up long before the rest of the plate. Now I always put the plate in the developer without removing the backing; after the image begins to appear one wipe with a sponge takes it off easily. Another mistake I made was scratching plates by drawing too rough a brush over them to remove air bubbles. The brush had got hard from lying unused. I should have soaked it for awhile in water previous to using it. I now use a fine camel's-hair pencil when I use a brush at all.

Another mistake I made was in not buying a thermometer, and in judging the heat of the developing solution with my finger; sometimes it was too hot and again it was too cold. Before starting to develop, I always make up a 16 ounce bottle of water to 60° in summer and 65° in winter and place it where I can put my hand on it in the dark. Another thing I omitted to take into account was the difference in heat of the developing dish if washed in hot or cold water, respectively, before pouring in the next developer. A hot dish brought up the temperature and forced on development, while a cold dish caused the development to become slower. I have always developed with pyro soda, but for a long while I made the mistake of making up the full quantity of 16 or 20 ounces. I nearly always had to throw out some. Now I make up the half quantity of the sulphite and bromide as a stock solution, and from this make smaller quantities of developer with pyro. I keep this in a small bottle, as it oxidizes more readily in a large bottle. In making up the developer I made two mistakes: (1) I did not use boiled water, and (2) I used to shake it vigorously. I discovered that both of these things caused the developer to oxidize more quickly. For a long time I developed *all* my plates with same strength of developer. After a bit I learned that a subject with very strong contrasts, that is to say, with white objects and deep shadows, required a longer exposure and a weaker developer, while a subject deficient in light and shade required less exposure and a stronger developer. Although I have found this to be correct, yet I often forget it, and am again forcibly reminded of it by producing a negative that might have been very much better if I had taken time to think a little before exposing it, or before developing it.

I soon found that it was a mistake to develop fast plates and fast exposures too quickly, as it did not give time for the detail in the shadows to come up, and produced hard negatives. I have time and again made the mistake of stopping development of a plate before the detail in the shadows appeared, simply because the high lights were getting too dense; when I ought to have gone on, and trusted to correcting my mistakes by reduction afterward. I have also spoiled many plates that were correctly exposed, by stopping the development too soon. This error of judgment was often made in the days when

I used to turn my light up and down, and sometimes had not turned it up far enough, or it was made through having too much bromide in the developer, the plate becoming dense on the surface only, while the image had not gone through the film. The bromide, in this instance, had not been added to restrain the developer, but had been painted on the sky to keep the clouds from being lost. I have done this very successfully, but the mistake I made was in not rinsing the negative before again placing it in the developer. A negative treated in this way requires more apparent density. I don't make the mistake now of turning my light up and down, but always keep it full and make it safe with fabric. I have tried pyro-metol developer, and have found that it brought out the detail, but very often produced a negative so soft as to be flat. For portraiture, I think it would be a great advantage. It certainly softens the negative. I have often got a passable negative from an underexposed plate, by a lengthened development in a weaker developer. I sometimes add a little metol to my pyro developer if I find the plate underexposed, as it combines with the pyro, and the plate does not even need to be rinsed. I now keep a tank with cold water in it, into which I place a negative which I find is showing too much contrast or where the detail in the shadows is not making its appearance.

I have spoiled a great many plates through fogging them, either by using too much soda or prolonging development unduly. I have had yellow fog, and green fog, which I have taken off with the ferricyanide reducer, or with the newer Globe Metal Polish reducer; but the negative was scarcely as satisfactory as one that had not been fogged. I have fogged quite a number of plates by painting with soda certain parts of them that were not coming up, more especially if I rubbed it on with my finger. In developing lantern plates, I have spoiled a great many by trying to dodge them during development, both with bromide and soda. The most difficult thing in making lantern slides is to judge the exposure required for each negative. I have lost more plates from errors of judgment in exposure than from all the rest put together. I am now certain that I have made a great mistake in not taking the actinometer number of every negative that might afterward have been used to make a lantern slide, a bromide enlargement, or a carbon print. Although it would have been irksome at the time, it would eventually have saved me a great deal of time and money. I have made the mistake of trying to get a clear slide from a fogged negative, which is an impossibility. Negatives which have pinholes or flaws of any kind require to be spotted or retouched before trying to make a lantern slide from them. I have wasted many lantern plates by not attending to this, and also by overdoing the retouching.

In developing lantern slides, the principal mistake I have made was using too much soda when trying to get brown tones, and thus developing too quickly, and in not reversing the process when wanting black tones. *No* bromide should be used if black tones are wanted. When trying to get red tones with a weak and restrained hydroquinone developer, I had a great number of plates spoiled by minute black spots. I found that this fault was caused either by the hydroquinone not being properly dissolved, or, more probably, by particles crystallizing out. I got rid of this trouble by filtering my developer through blotting paper immediately before using it. Brick red slides may be changed to a mauve color by toning them in a *weak* gold bath for a few seconds. If you keep them too long in the toning solution they will turn blue.

I have also spoiled plates which were being slowly developed by not rocking the dish all the time. A cloudy unequal development was the result. I have wasted a great many lantern slides by reducing them with ferricyanide and overdoing it. I don't care for the yellow color it gives them, although the stain may be partially removed by putting them into a clearing solution. I have tried intensification of lantern plates, but won't try any more, as I never yet got a satisfactory slide as the result. It is better to spend the time making a new one. In using either alum or a clearing bath of alum and citric acid, sometimes you get a gray bluish deposit on the film. This I have omitted to rub off with my finger. I have now discovered that it is better to fix your slides in acid hypo than use a clearing bath. Once I spoiled a lot of plates by scratching them badly, my finger being very rough from a partially healed cut. When rubbing a part of the lantern plate with my finger to induce a development, I have scratched it badly through allowing my nails to touch the film, and I have wasted many a plate through lifting it otherwise than by the edges.

The reduction and intensification of plates I have tried with better results, but not without numerous mistakes. Reducing a plate locally with ferricyanide of potassium, in order to reduce the contrasts, I have sparked it all over the plate, or allowed it to run down where it was not wanted. Although I *have* managed it successfully, as a rule I have spoiled the negatives when I have attempted local reduction by this method. Then in reducing with persulphate of ammonium, also to reduce contrast, I have spoiled plates through discoloration caused by the plate not having been washed perfectly free of hypo. I have lost many more through the plates frilling when washing. This resulted from risking it without previous treatment with alum. In local reduction with this reducer, you must keep this reducer in motion. I have wasted plates by wetting the part you wished reduced and then laying the negative flat and leaving it motionless for two or three minutes. I found the reducer in this case went deeper into the film at the edges and left lines or marks. I have tried the *new* reducer, "Globe Metal Polish," and have found it very satisfactory. I have reduced many negatives with it and have not spoiled one. The beauty of it is that you can reduce a negative partially and can take it up an hour afterward or a month afterward and finish it. Another mechanical process for the reduction of contrast is to stain the negative where it is too thin with an analine red dye, like fuchsin, which, by retarding the printing of the part treated, allows the rest of the negative to attain the correct density. As regards intensification, I may say that I spoiled a good many plates with the bichloride of mercury intensification. It invariably made my negative too dense. After bleaching with the mercuric chloride, I have blackened the negative with ammonia, with a Pyro developer, and with a Metol developer, but in every case made my negative too dense. Lately, I have tried the iodide of mercury intensification and have got much better results. The chief advantage of this iodide of mercury intensification is, that you can watch the process as you watch a plate come up in a developer and stop it when you please. It is easily prepared. Dissolve some sulphite of soda in water and add a little iodide of mercury; cool it, and it is ready for use.

I have printed on all kinds of paper, but chiefly on P.O.P. In printing on P.O.P., at first I spoiled many a sheet of paper by not printing it deep enough. I eventually discovered that it should be printed till the detail in the shadows disappeared. I have seldom printed it

too deep when I was watching it. Most of the paper spoiled through overprinting was through forgetting it. For a long time I toned with gold, then I tried platinum. The toning process I found to be most difficult, and my mistakes and failures were numerous. I tried to tone too many prints in one dish, and found that they toned round the edges before toning in the centre. Then I had yellow marks, from allowing the prints to stick together when washing, or from touching them with dirty fingers. I had much less trouble after starting to tone by Oliver's method—the difference between which and the usual method is, that the bath is not diluted with water to the usual extent, and instead of turning over a number of prints, you only put in one or two, face upward, and then move the toning solution by rocking the dish. The print does not require to be handled till they are toned sufficiently. I now tone in a whole plate dish, which holds four quarter plate prints. At first I overtoned, by not allowing for the toning going on after taking them out the toning bath; latterly, I took the first prints out whenever they began to lose their original red color, and placed them in clean water, or a solution containing salt, where the toning was completed, and then went on with the next four. The toning bath gets slower as you go on. Overtoning gives prints a weak grey tone. At one time I was troubled with uneven or double toning, but got rid of the fault by first immersing the prints in an *old* toning bath. I had some trouble, caused by the toning bath getting spent; the prints turned yellow. By adding more gold, they toned all right, but I had an idea that they were rendered less permanent. Another cause of yellowing of prints was from contamination of the toning bath by hypo. I once let a drop of hypo fall into it. Another time, in rocking the dish, I just touched the solution with my finger, which had just been in the hypo; the prints immediately turned yellow. Another time I put my toning solution into two dishes. One of them I had used for hypo, but I thought if I washed it carefully with soap and water it would be all right. I poured in the toning solution and then put in two prints. They at once turned yellow. I hurriedly lifted them out and put them into the other dish, into which I had also placed two prints. These also turned yellow; and I had to throw out both of the toning baths. I have also got a poor bleached tone by having the hypo too strong, or by leaving the prints too long in it. Strong hypo gives a bluer tone, and I found I must give print less toning.

For several years I toned with chloroplatinate of potash. It has the advantage of being always ready and that you can again use any you may have left over if you put a little salt in it. I did not manage it at all well at first, my prints would not tone, or toned very slowly. At last I discovered that toning only goes on in an acid solution. This made the prints tone beautifully, but they went on toning in the hypo and became weak and gray from overtoning. I corrected this fault by neutralizing the prints in a weak solution of washing soda and seeing that the hypo was neutral or slightly alkaline. All this was so much trouble that I have reverted to gold. In cold weather, toning is inclined to get slower, owing to dishes, etc., getting colder. I found that by floating the dish for a minute into hot water, which you can keep beside you in a basin, the toning again went on merrily. I tone *all* the prints I have to do before I make up my hypo and this makes it impossible to spoil prints by having hypo on your fingers, etc. A very nice brown tone can be got by not toning too far and then putting the prints into *weak* hypo. They can afterward be put into stronger hypo without altering it. I often use two hypo baths.

I always squeegee my prints. For a long time I used ferrotype plates. The chief difficulty I had with them was, that they got easily scratched and damaged, as you must keep them clean in order to prevent your prints sticking to them. They may be cleaned with a pad of absorbent cotton and a few drops of benzine. The mistake I made was in cleaning them with a cloth that was too rough, or rubbing them too hard. Latterly I have been squeegeeing on glass. I first wash it lightly with Monkey Brand, rinse it off, dry the glass, then I put a few drops of paraffin oil on a woollen rag and rub it all over. Then I polish it up with clean dusters until apparently all the paraffin is rubbed off. Meanwhile my dried prints have been placed in clean water, in which they are kept till they flatten out, and are squeegeed with blotting-paper in the usual way. I have not had a single print stick after this treatment.

In printing with platinotype paper, the chief mistake I have made was in judging the printing; the remainder of the process is mechanical. I have made the mistake of handling the wet paper rather roughly, and have torn it. I have not done much in carbon, and perhaps that is another of my mistakes. In bromide prints, and bromide enlargements, I have done more, and made more mistakes. My mistakes in exposure of bromide enlargements have been great. I once spoiled a number of sheets of paper in trying to produce a clear print from a fogged negative. I have made enlargements, and only after development did I discover how many faults my negative had. Many faults that show very slightly or do not show at all in a P.O.P. print will be very *apparent in an enlargement or a lantern slide.* I have tried to make an enlargement from a dense negative and got a very hard print. A thin negative with plenty of detail is best. I have made mistakes in exposure which cannot be remedied but may be modified in development. It was a long time before I discovered that with a developer of full strength, and at about 60° F., the image should appear in ten to fifteen seconds, and over- and underexposure judged accordingly. In winter weather, with the water from the tap at 40° F., or less, I have been misled as to the exposure. The image took longer to come up, and this caused me to give it double the correct exposure. Again, I have found out the correct exposure by a trial strip which I placed in the developer in measuring glass. I have then made the exposure on a whole sheet, and found that it would not come up, and the slow development caused degradation of the whites and spoiled the expected result. This was caused by ice cold dishes bringing down the heat of the developer. Then I have been troubled with bluish-gray tones instead of black, which I wanted. This was owing to my developer being too weak or having too little soda in it. I have, through overexposure, or leaving my print too long in the developer, had the whites degenerated. I have failed to get contrast through overexposure, and failed to get the print to come up properly through underexposure. I have tried to fake a print during development either with bromide or soda, and spoiled it. It is easier to dodge the print by giving one bit of the negative more exposure than another, but I have spoiled prints in this way, too.

Bromide paper won't stand rubbing with the finger. I have tried to rub off marks of various kinds, or to induce development in a bit that would not come up, and have rubbed off a bit of the film and spoiled the whole sheet. Another mistake in the development of large sheets of bromide paper is not getting it to lie perfectly flat in the developing dish before pouring on the developer. This causes unequal devel-

opment. In working the Association's enlarging lantern, I did not know for a long time how to focus the light on the back of the lens so as to get the greatest amount of illumination. I find that some gentlemen who use the lantern still shove the light out or in, when this can be done by the focusing screw outside. In making an enlarged negative, I had it spoiled by light reflected from the pins which I used to attach it to the upright board. I now use pins which don't reflect light. I also made the mistake of wasting time and gas by stopping it down, when full aperture gave equally good or better results. I once left a negative in it, and got it broken by the next man who used it, and who was not to blame in the least.

When toning bromide enlargements with sulphide of ammonium, I made quite a number of mistakes, mainly through not understanding the process. Working with any paper, I found that an overexposed print with degraded whites would not do. To get a good sepia color, you must *first* have a *good black* print—a print which has been properly exposed and developed to its full extent, and to the dark side. If the print is to be toned by the hypo alum process, it should be developed till you just lose sight of the detail in the shadows.

I first tried to bleach with bi-chromate of potash, and made several mistakes with it, and as I did not like the tone it gave, I tried the hypo alum method, which pleased me better. I have spoiled a great many prints with the hypo alum process through heating the developing dish unequally. An oven or water bath, the temperature of which could be regulated at pleasure, would be a great improvement. Because of the difficulty, I should say the well nigh impossibility of working the hypo alum process in our dark room, I have for two or three years been toning with the iodine method, and sulphide of soda. Now I have discarded that for the simplest method, of bleaching with red prussiate and bromide of potash, and toning with sulphide of soda. This is the best method if you don't wish any decrease of density. The hypo alum method should be used if the print is rather dense.

I have probably given you quite enough to show you the price I have paid for my experience. Sometimes I have felt discouraged, but on the whole my mistakes have only made me more resolute to persevere, and it is perhaps because it has cost me so much that I love the art of photography as I do. If this paper has been helpful to any member of this Association, then the writing of it will *not* have been one of "The Mistakes I have made."

INTENSIFICATION WITH CHROMIUM.

THIS process of intensification is not exactly new, seeing that the fact of its being a possible method was pointed out many years ago. At that time the reason of the intensifying action and the fact that it was actually due to the addition of a chromium compound, was not known. Photographers looked upon it as a curious experiment, rather than as a useful process, and it was not suspected that by proper adjustment of the ingredients used the power of the intensifying action could be increased to such an extent as to render the method a formidable rival to mercurial methods. A few years ago, however, the process was exhaustively studied, the results analyzed, and the conditions that govern the amount of control were determined. The process was rendered powerful and

certain, and it then was speedily adopted by many workers. Its present popularity is proved by the fact that so many different manufacturers are now putting the materials upon the market in the form either of solutions or of that of compressed solid tablets.

It has the advantage of being a very simple process, and the necessary ingredients are to be found in practically every photographer's workroom. Nothing is required beyond some potassium bichromate, hydrochloric acid, and a suitable developer. The process is applicable to negatives, lantern slides, or bromide prints, and in each case the procedure involves the simple bleaching of the image, followed by washing. The result is then developed, washed again, and dried. The bleaching solution works at its best when freshly mixed, but the separate solutions keep indefinitely, and the mixing involves no trouble whatever.

A 4 per cent. solution of potassium bichromate is required, and also a 2 per cent. solution of hydrochloric acid, that is to say, one made by adding 2 parts of concentrated acid to 98 parts of water.

For use, we mix equal parts of these two solutions and immerse the plate or print in the mixture until the black image is changed to a yellow-brown one.

The bleaching action is finished when all traces of the black or gray image have gone. It will then be seen that the whole film is stained yellow, and the next operation is to wash until this yellow stain has gone. Twenty minutes in a syphon washing tank is generally ample for a negative or slide; or we can wash by soaking, when half a dozen changes of water will usually suffice either for a print or plate. When washed, the image is redeveloped up to full blackness, then washed and dried. The most satisfactory redeveloper is amidol, but metolhydroquinone or glycine can be used if more convenient. Rodinal, metol, or hydroquinone used alone are not satisfactory, neither is ferrous oxalate, but pyro can be employed if a brown-colored image is not objected to. No bromide should be used with any developer.

The process can be repeated on the same film over and over again, but usually the first operation is sufficient. The image is generally of greater density than one would think as the result of mere visual examination, therefore it is advisable to make a trial print before repeating the process. If repetition is likely to be required, use the amidol developer. The others being strongly alkaline, are very likely to cause frilling if applied more than once to the same plate.

The process is very rapid and safe. The three common causes of failure are the use of stale bleaching solution or developer, exposure in too strong light before development, and the attempt to carry out the process on films that were not properly fixed in the first instance. The last cause is a prolific source of trouble with all kinds of intensification, while imperfect washing after fixing is fatal with nearly all processes except the chromium one. This can actually be applied to a fixed plate that has been rinsed only, though this procedure is not recommended, but perfect washing is essential before such other methods as uranium, or any of the mercurial or silver processes. As regards exposure to light, no exposure at all is necessary, as the image will develop quite readily without it, but there is no need to work in the dark-room or by artificial light. Diffused light is quite safe if the washing after bleaching is not carried on for more than about twenty minutes in an open dish. Long exposure to diffused daylight or a short one to sunlight will, however, render the image less easily developable, and may even render it quite undevelopable; therefore, such exposure

should be avoided. Further than this, the developing operation should not be carried out in sunlight, for many developers stain most violently in a very strong light, though in other conditions they are quite stainless.

Two very valuable features of the process are its applicability to bromide prints and lantern slides. A weak bromide print is greatly improved in color by the process, and the effect produced on lantern slides is unequalled by any other process except that of silver intensification, which is a somewhat tricky and troublesome method in inexperienced hands. The chromium method gives a very fine black tone that is quite permanent, while mercury usually gives brown-toned results, that are materially affected by the heat of the lantern.

ENLARGEMENTS FROM SMALL NEGATIVES.

"AMATEUR developing and printing a specialty," such is the legend which constantly appears on the noteheads of many of our friends. Whether the photographer loves the amateur or not, he has had the business acumen to see that the amateur is anxious to spend money with those who will assist him. If the photographer had not stepped in he would not have scotched the amateur, but would have raised up someone else to do the work. Therefore, like a wise man, he took the chance himself.

In the cities, where the amateur trade is a specialty, the storekeepers are ever on the alert for some new line of profit, and this season they are working enlargements as a novelty, 10 x 12 bromide enlargements, made from clear-cut, snappy pocket kodak negatives, look very effective, and they should pay well at the price asked—75 cents.

Where the photographer finds a plate which is correctly exposed (and amateurs have the wildest notions about this), he has the possibilities of successful enlargement, for the negative should be specially made to this end, fetching out all the detail and sharpness possible, with lots of snap. It is advisable to make a negative specially with a view to enlargement where a straight order for such a print is given, but where it is a matter of using an amateur's products, the photographer must e'en do his best. What is the limit of enlargement? Some excellent enlargements have been made up to fifteen or twenty diameters. This would make from a 4 x 5 negative a print five feet broad. This is scarcely a likely case, but very considerable enlargement may often be accomplished. A little practice, by inspecting the negative, and also by inspecting the enlarged image, thrown on a screen, will enable the photographer to judge how far he may go. It is supposed that if a considerable enlargement is made some adequate recompense is received. We are no advocates of extortionate prices, but we *do* believe in a man getting a reasonable return not only for his time, but also for his skill and knowledge. In making an enlargement it is well first to make a trial on a strip of paper to judge the length of exposure required. He says: In placing the sensitive paper in position for exposure, a tin hood is used on the lens, in which is fitted a fairly deep canary glass, and if this is of the right tint, a reasonable time may be occupied in fixing up the paper and seeing that the image occupies the right position upon it without causing any deterioration or fog; but it is, of course, wise to accomplish this part of the operation with as little delay as possible. A couple of minutes or so will do no harm

with fairly dense images; but, if exceptionally thin negatives are being enlarged it is prudent to insert a second sheet of yellow glass in the tin hood. Fog, however, seldom gives any trouble in enlarging when reasonable precautions are taken.

Any dodging or correcting during exposure is performed by wafting a card at a fair distance in front of the sensitive paper, and, if vignettes are required, the vignetter is placed on an upright support a short distance in front of the lens, and moved backward and forward until the shading is seen to be as desired.

A very handy little contrivance for holding a vignetter in position between the lens and sensitive paper when enlarging is formed by using the upright rod of a microscope lamp, and sliding the cut-out, to which the tins have been applied, up and down, until it just reaches the right position. Some workers seem to shirk the vignetting of pictures in enlarging, and prefer to produce them in what is known as "solid" form, but the vignetting is quite easily performed if such a simple method of holding the vignetter, as stated, is resorted to, and in portraiture it is often a distinct improvement.

If the enlargement is very large, a new worker is apt to feel some little anxiety when it comes to development; but there is one thing fairly certain: when he has made a few successful prints he will be an enthusiast. Once he masters it there will be no difficulty. The main factors to be observed in development are the following: First have plenty of developer ready, and see that quite a plentiful supply of safe light is provided, so as to throw a sufficiency of light over the entire developing dish, and then have at least two good-sized tubs placed in position at the corner of the dish where it has been decided to pour off the washing water.

Have the developing dish made of tightly-jointed wood, or whatever large size may be required—we are speaking now of prints up to life size—and place in it slow cold water to the depth of an inch. The exposed roll is then taken to one end of the dish, and the operator handing over one end of it to his assistant at the other side of the dish, while he holds the other at his opposite side, the roll is equally unrolled and the paper submerged in the water *slowly*, care being observed that no air-bells get underneath. By *slowly* and deliberately unrolling the paper equally at both sides, this will be avoided. When the entire length is submerged (of course, sensitive side upward), plenty of time must be given for the paper to become equally saturated throughout. This is important, for, if care be not observed at this stage, there will be a strong liability of causing marks, by unequal development, during the next stage of the operation. In any case, it is a *sine qua non* that the entire sheet of paper must lie absolutely flat in the bottom of the dish. When the washing water is all run off after soaking, and prior to the application of the developer, four or five minutes may be necessary before the paper is equally saturated and expanded; then, by gently lifting the dish, the water is made to overflow into the tub that has been provided at one corner, and the whole dish is reared up on end for nearly ten minutes to drain off as much superfluous water as possible so as to ensure equal development.

If metol be employed, the plain solution is first applied copiously, and by rocking the dish and the use of a very wide camel's-hair brush, it is made certain that every part of the surface has received the developer. This is then carefully poured back into the large wash basin, into which a small quantity of accelerator has been placed, and, when carefully mixed, the entire wash basinful is deftly applied to the print,

and the dish rocked and the solution guided over the entire surface by means of the brush. If the exposure has been right, the shadows or dark portions will come into view in about half a minute's time, and then the entire picture develops beautifully out, any parts that hangback being coaxed up with the brush, and, if necessary, a little extra soda or potash being applied, or it may be that bromide is needed.

If all goes well, the result is something that an operator may well feel proud of, and he is sure to give vent to his feelings by such expressions as "he's a beauty." When the developer is run off, the print is rapidly sluiced with water, to be followed with the fixing solution, all of which, in plentiful supplies, must be ready at hand, and no carelessness, even at this stage, must be allowed to intervene, for it must be seen that every portion is quite fixed. The washing is then finally performed, and the print drained and hung up on the sides of the dish when reared on end, for, say, twelve hours, till quite dry.

The mounting of these large prints is of course, done upon cloth. Suitable cotton sheeting can be had from any dry goods store, and this is first soaked, and wrung out, in clean cold water, and nailed upon a stretcher until practically drum-tight. The dry enlargement is then placed face downward, and, by means of a wet mop or sponge, a plentiful supply of water is applied to the back thereof, and, when the print is quite wetted equally, throughout, a good supply of stiff and cold freshly-made paste is evenly spread over its back, care being taken that the paste is quite free from any lumps by having pressed the same through a bag of coarse muslin. The print is then placed upon the stretcher and rubbed into contact, and set away to dry. When all has gone well it will dry up beautifully smooth and drum-tight.

We said that this special work should be sufficiently well paid; the working-up is an item which cannot be overlooked. It will require both patience and experience, but with the use of a little judgment and brains, a very satisfactory result will often be obtained with two or three hours' work. If metol has been used in the development, a little ivory black and Chinese white, mixed so as to yield the color of the different densities it is desired to work up, will yield any depth, from the darkest shadow to the very verge of the highlights, and the picture should be placed under the light of the window in the same position as it is intended to occupy finally.

Any black spots or eyesores that may have to be removed are gotten rid of by touching them carefully with a finely pointed brush, carrying a little solution of ferricyanide of potassium and hypo, and when they are white and dry, they are easily colored to the tint of their surroundings.

ASSOCIATION NEWS.

At a meeting of the Professional Photographers' Club of New York, held on March 10, the following "Aristo" cups were awarded by C. F. Becker, to I. Buxbaum, S. H. Lifshey, and E. F. Foley. Certificates of honorable mention were awarded to G. Fisher and A. Coe. An instructive, if somewhat caustic, criticism of the pictures was given by Mr. Mandelkern, one of the judges. Next on the list of activities of this organization is the annual dinner, to be held on March 31; after that, another Loan Exhibition of "Western Work."

This club expects to be well represented at the New York State convention.

Society of Professional Women Photographers of New York, organized for the promotion of the general welfare of the Metropolitan Section of the P.P.S. of New York., and the betterment of of the profession, and creating, fostering, and maintaining cordial relations between its members. The members meet once a month at the home or studio of a member and discuss reception room and studio bookkeeping matters. Membership is open to the wives of members or wives of men eligible for membership in the Metropolitan Section of the P.P.S. of New York; or such women as are proprietors of studios in the State of New York. The officers are: Mrs. Floyd E. Baker, President; Mrs. Pirie MacDonald, Treasurer; and Mrs. B. Frank Puffer, Secretary, who, with Mrs. F. W. Tyler and Mrs. S. H. Lifshey, make up the Executive Committee.

TRADE NOTES.

THROUGH a system of lighting, which he controls, H. W. Von Bremen, of 27 East Twenty-second Street, New York, is making enlargements on chloride papers (Velox, Cyko, Argo, Artura, etc.) that are difficult to distinguish from direct prints. These enlargements contain all the life, gradation, and detail found in the direct print, with the added advantage over bromide in the numberless weights and surfaces that the chloride papers come in. Photographers interested in enlargements would do well to write to Department 3, at the above address for further particulars.

The Photographic Quartet, a series of short articles by some well-known photographers, in regard to four popular lenses, illustrated by reproductions from their negatives. When the well-known photographers referred to include such men as Frank Barrows, A. T. Proctor, L. A. Dozer, Felix Raymer, and G. W. Harris, it is evident that what they endorse is worthy of investigation. The lenses which they write so enthusiastically about are the Vitax, Versar, and Velostigmat, and if you are in the market for a lens, you cannot do better than get a copy of this interesting and handsomely illustrated booklet, which will be sent post free by the WOLLENSAK OPTICAL CO., 298 Central Avenue, Rochester, N. Y.

The A B C of Photography, by Fayette J. Clute, a revised edition of which has just been issued by BURKE & JAMES, is one of the best elementary books that has yet appeared. As its title implies, it is written for the amateur taking up photography, and any of our professional readers who are asked to recommend a good beginner's book cannot do better than to recommend this one.

SINCE our last issue appeared, we have tried samples of Crystalla and Chloralla, the new development papers put on the market by the SUSSEX PHOTO PAPER CO., of Newton, N. J., and were well pleasen with the results. Crystalla, the portrait paper, yields a rich, soft print in a warm olive tint—the sort of prints that sell. The Chloralla paper gave excellent prints from landscape negatives, and is recommended for commercial work. Samples of both papers will be sent if you write, mentioning this magazine.

THE Seneca Camera Mfg. Co., of Rochester, N. Y., advise that their new catalogue for 1910 will be ready for mailing within a few days. Judging by the catalogues issued in past years by this progressive company the 1910 issue will contain many novelties, and should be seen by every photographer. A copy will be sent on request mentioning WILSON'S.

THE many opportunities of making money in photography are far from being exhausted. Good money can be made in outdoor work with a five by seven camera. J. H. BARNES, of 607 Gearing Avenue, Pittsburgh, Pa., who is not content with making less than $100 a week on outdoor view work, has gotten out a book of practical suggestions and methods of successful working that he will be glad to tell about.

WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
MRS. EDWARD L. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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EDITOR'S TABLE.

WE regret to announce the death of Dr. John Nichol, at Clifton Springs, N. Y., on March 13. In his death photography in this country loses its oldest practitioner and the photographic press its most respected and revered leader. Dr. Nichol began his photographic career as far back as 1841, or sixty-nine years ago. He would have completed seventy years in photography had he lived until May 9. He was a chemist by profession, and was interested in the theory of photography more than the practical side of it. Later, he became interested in photographic journalism, and founded the *Photo Beacon*, in 1889, and for the past fourteen years was editor of the *American Amateur Photographer*, lately merged into *American Photography*, of which he was an associate editor at the time of his death. Though suffering from an incurable disease during the last few years of his life, he retained his genial and lovable disposition to the end, and his memory, covering photography from its infancy, never failed him. Peace to his ashes!

WE hear a great deal about fraternity at the State conventions, and we are always glad to see it put into practice. From the Haverhill (Mass.) *Record* of March 17, we read that the Varney Studio was burned to the ground. Mr. Geo. H. Hastings, the genial secretary of the P. A. of New England, at once offered his burned-out competitor the use of his studio and workroom until Mr. Varney could refit his damaged studio. This is the fraternalism that means something.

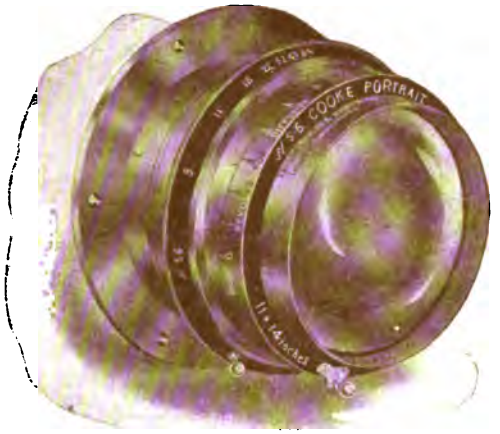
WE regret to announce the death, on March 9, at Johnstown, N. Y., of William H. Kibbe, an old subscriber and contributor to this journal and *Mosaics*. Mr. Kibbe was born in Johnstown in 1846, receiving his schooling at Johnstown Academy, and spent the whole of his business life in his native town, of which he was one of its oldest and most respected citizens. Mr. Kibbe learned his photography with the late James F. Ryder, and in 1871 opened a studio, which he occupied until the time of his death. The high standard of his work attracted attention, which gave him a reputation extending far and wide. Not only a master with the camera, his studio was hung with many evidences of his skill as a painter in oil and water colors. He took an active interest in all town affairs, and was a credit to his profession, the best traditions of which he upheld for forty years.

UNFORTUNATELY, all photographers are not a credit to their profession. Mr. T. H. Black, of Jamestown, N. Y., advises us of a man travelling under the name of W. Burton Nichols, who absconded with a considerable sum of money, taken from Mr. Black's branch studio. He claims to have been employed at the Hall Studio, New York, and is described as a man of pleasing personality. Photographers would do well to remember the name and be on the alert.

PORTRAITS in oil, landscapes of almost inaccessible parts of the world, and photographs of out-of-the-way places, seldom seen by Americans, form an interesting exhibition at the studio of W. H. Partridge, Westland Avenue, Boston. Mr. Partridge is best known as a photographer, but he has devoted much time to painting, and his landscapes, especially of Alaska, make a notable collection.

IN our December issue we reprinted an article on "Quality in Bromide Prints," from the *Australian Photographic Journal*. In going through press, this journal's name was unfortunately shorn of its last word. It should have appeared in full, as above. We are glad to make this correction and restore the missing word.

FROM the EASTMAN KODAK COMPANY we have received the portfolio of their last kodak advertising contest. It is a beautiful book of pictures, and should be seen by all photographers who contemplate entering the next kodak competition —and for such rich prizes every photographer should compete. The Eastman Company will be glad to send a copy of the portfolio to any of our readers who will write for same.



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MAY, 1910

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VOL. XLVII MAY, 1910 No. 641

A PRIVILEGE AND A DUTY.

It is the privilege of members who are in good standing in an organization or association, to elect officers for stated periods.

This they cheerfully and light-heartedly do when the ballots are prepared. After voting a man or set of men into office, they seem to think that having done all that is necessary to elect officers for the ensuing year; they can go home and forget all about it until another election comes round.

That the electors have a duty to the elected is a point entirely overlooked by the man who does the voting.

President Bliss, of the New York Society, was perfectly justified in his righteous indignation expressed at the recent meeting of the society, for the lack of support from the men who had voted him into the presiding officer's chair twelve months previously.

Such a disregard of the duties imposed by membership in a society for mutual benefit can only result in its disintegration. The most powerful organization cannot stand against indifference, and the New York Society was only saved by President Bliss allowing himself to be nominated for a second term, against his previously stated wish to retire.

Elected officers are just like other men, and the fact that they have been elected the head of a society does not make their week fourteen days long. While attending to the affairs of the society for the benefit of its members, they have also to run their own business affairs.

Members should realize their duties to their elected officers, and should not compel them to waste their time and energy in writing four and five letters on one subject before vouchsafing an answer.

If you receive a communication from one of your officers that demands an answer, see to it that you answer promptly. You voted the man into his job, and the least you can do is not to waste his time making him write you again on the same subject. You may be very busy, but it is quite probable that he is just as busy.

The round of applause a man receives when his election is announced may be flattering, but it will not do much to help him to run the affairs of the society to a successful issue. For this he has to depend upon the help of individual members, and it is their duty to respond when called upon.

PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK.

THE sixth annual meeting of the Professional Photographers' Society, of New York, was held in the Metropolitan Building, New York, April 6, 7, and 8, and was as successful as any of its five predecessors. The attendance was perhaps, not quite up to former records, but made up in enthusiasm what it lacked in numbers.

Lectures and talks took the place, this year, of the photographic demonstrations, Mr. Sheldon's talk on the basic principles of business being highly appreciated. Mr. Stevens, director of the Toledo Museum of Art, also gave a talk very much to the point. The much-heralded art lecture only demonstrated that Mr. Chase is a much greater painter than lecturer on art.

The single print exhibition—members being restricted to one print only—was fairly good on the whole. The poorer grades of work show a steady improvement but the outstanding pictures were few and far between. The exhibition was remarkable perhaps for the unusual number of fine portraits of old men with wrinkled and strongly marked faces.

The prize of fifty dollars for the best idea drew many contestants, but Mr. Howard D. Beach had little trouble in carrying off the prize with his method of supplementary skylight lighting. (Illustrated and described elsewhere in this issue.)

The election of officers for the ensuing year demonstrated the fact that there is a strong disinclination on the part of eligible members to take the presidency, and only when it became apparent that the Society was in danger of going to pieces did President Bliss allow himself to be nominated for re-election. The officers elected were: President, H. A. Bliss, Buffalo; First Vice-President, J. E. Hale, Geneva; Second Vice-President, A. L. Newing, Binghamton; Secretary, H. D. Beach, Buffalo, and Al. Lloyd, Amsterdam, Treasurer.

The banquet, under the direction of Ex-President Bradley, was a great success. A large crowd sat down at small tables and enjoyed an excellent dinner followed by an enjoyable entertainment. There were no speeches with the exception of one by President W. H. Rau, of the Pennsylvania Society.

This convention, sometimes known as the one-print convention, is developing into a one man convention judging by the number of times an ex-president had the floor. We greatly admire a strong man and he is often necessary to put an organization on to its feet, but by constantly stepping into the breach, they sap the resolution of the weaker brethren.

The full report of the meeting which we have usually printed, will this year appear in "Section News" only.

AN OPEN LETTER TO WOMEN PHOTOGRAPHERS.

THE Women Photographers of the United States will meet for the first time, as a body, and as an organization for women, with the National Association of the Photographers of America at the Annual Convention in Milwaukee, July 12 to 16. We are distinct, yet fully affiliated with the National body.

The Board of the P. A. of A., alive to the growth of the Federation in the past

few months has accorded full recognition, wall space, hours and support at this convention. It is the duty of each one of us to make such a show, both individually and as a united body, so that the purpose and sound business advantage of our affiliation shall be firmly established.

Will you join us and do your best towards making this exhibit by women a brilliant and convincing success? Will you send specimens of your work? Just three prints, which will most thoroughly represent you! Photographs are to be unframed. The intention is to give each exhibitor equal representation and to secure a harmonious, uniform and impressive display. It is proposed to use glass to cover each exhibit. All prints will be carefully handled and hung to the best possible advantage by a committee selected from our own members. It is expected that this collection of photographs will attract great attention from the Press of the entire country.

Exhibitors are requested to note on entries any objection to pictures being reproduced for publication.

In order to facilitate the labors of the Committee and the Women's Federation, please let me have your name on or before May 25th so that it may be incorporated in the list of exhibitors and placed in our catalogue.

Cordially yours,

MARY CARNELL.

1314 Chestnut Street, Philadelphia, Pa.

WHAT THE WOMEN'S FEDERATION OF THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA HAS TO OFFER.

FIRST. An association for women Photographers for their advancement along artistic, ethical and business lines.

Second. Managed and controlled by women for women to forward the best of ideas through organization.

Third. Activity in centres by drawing together the women of any locality under a good leader for study and social intercourse.

Fourth. Through the "Circle" a regular exchange of prints, that women members may become better acquainted with their work and each other.

Fifth. Demonstrating the value of exhibitions thoughtfully conducted, thereby creating a desire for study and greater effort.

History.

The movement to organize the women photographers of America had its inception at the National Convention held in Detroit in 1908. During a "social evening" for the ladies, while the masculine members of the association foregathered in another room, a group of earnest and interested professional women formed a little caucus of their own.

They evolved the "Circle," that through an exchange of prints women all over the country might become better acquainted with each other through their work and find stimulation and pleasure from periodical visits through the mail. So successful was this circulation of work and ideas, that the following year in Rochester, under the cordial encouragement of the President. Mr. Frank Barrows, a meeting was called for the purpose of establishing a Woman's Section of the parent society.

The year's work has been most encouraging, membership is steadily progressing and members write appreciatively of benefits which have come to them through association with the

Federation. The "Circle" has again proved an inspiring bond between busy and successful women. The officers and chairmen of the various sections have worked splendidly to carry out the ideas of the organization through correspondence and personal influence. Especially strong work has been done by Mrs. Gertrude Kasebier, who conducted a class in composition. Workers with the camera should understand that occasional association with fellow-workers is well worth while! If you learn from them or if you give of your greater knowledge, you are equally enriched.

Why we are Associated with the P. A. of A.

Because we first organized under their wing. They have financed us and arranged to give us further help by supplying an art-critic for the women's work. They have accorded us full recognition, good wall space, special hours, and support to our new organization at the coming Convention, July 12-16, 1910, at Milwaukee, Wisconsin.

Remember now that most of the progressive women photographers will be there, ready to talk with you about their plans and successes.

Promise now to our president that you will send three photographs to our Milwaukee exhibit.

Plan now to be with us and receive some of the benefits of this organization.

Apply now to one of our officers for membership.

Officers: President, Mary Carnell, 1314 Chestnut Street, Philadelphia, Pa.; Vice-President, Belle Johnson, Monroe City, Missouri; Secretary and Treasurer, M. Estelle Jenkins, 432 N. Park Avenue, Austin Station, Chicago, Ill.

Chairmen of Committees: Eastern Section, Gertrude Kasebier, 315 Fifth Avenue, New York.

Middle Section, Katherine Jamieson, Center and Highland Avenues, Pittsburg, Pa.

Western Section, Eola W. White, 8 East 11th Street, Kansas City, Mo.

QUALITY OF LIGHT.*

As various new illuminants have been placed upon the commercial market the question has arisen as to the relative value of the light given by them, as an artificial duplicate of daylight. Such a broad use of the term daylight has led to much discussion between the advocates of each artificial light source. It is the purpose of the author to submit results of some investigations upon which an estimate can be formed as to the comparative merits of each of the more common commercial illuminants.

None of the artificial sources of light which the author has investigated gives a quality of light which approximates that of daylight. However, the proper use of those which have been investigated, with a due consideration as to their defects, will tend to assist consumer and producer alike in the improvement of present systems of illumination.

The development of civilized man has taken place beneath the light of the sun. It would, therefore, appear that the standard of light for all purposes should be sunlight and all of the qualities of this light should apply to the ideal artificial illuminant. This

*A Popular Science Lecture delivered at Witherspoon Hall, Philadelphia, by Paul F. Bauder.

would be the case if man were to labor chiefly out-of-doors as did his predecessors; but the requirements of civilization have been directed toward interior occupation. It is evident for this reason that any variation from an industry undertaken beneath the light of the sun might require a variation in the character of light to be used whether it be natural or artificial.

Daylight is the only natural light source, while under the heading "artificial illuminants" may be placed all of the light sources which have been in use since the beginning of time.

At best, daylight is greatly variable, but nevertheless it has generally been the light to which artificial sources were referred. It is apparent that this light must have certain fundamental characteristics which make it a standard. A standard of illumination must, however, have certain requirements, the most important of which is constancy. There are so many varying conditions which affect the light from the sun that no definite standardization of average daylight has been universally agreed upon by investigators. Those qualities, for a standard unit of illumination, which mark the sun as the ideal illuminant for the majority of conditions may be classified under the following headings: *Intensity, Color value, Direction of rays, Ability to reveal detail, Adaptability.*

These five qualities will be discussed separately.

Intensity of Daylight Illumination.

The sun is brightest at noon, *i. e.*, the sun is at its maximum intensity when there is the smallest chance for its direct rays to enter the eye and injure the retina. The eye of man is naturally protected, by the projection of the forehead, from the high intensity of the sun's light during the larger portion of the day. At sunrise and sunset, however, the rays of light of maximum intensity come in a horizontal direction and are therefore more liable to injure the delicate interior of the eye. The usual presence of mist or fog and the greater absorption due to an additional depth of atmosphere at the horizon decreases the brilliancy and gives to the light a diffusion and color tone, which causes no injurious effect upon the eye. Although the principle of a light source varying to meet natural conditions cannot be applied to artificial illuminants, that of placing the light source above the range of vision, so that the natural construction of the eye may be utilized, is immediately appreciated.

The diffusion and reflection obtained in artificially lighted rooms are far different from the effects obtained with sunlight or daylight. The height of interiors limits man in employing to the best advantage the principle of diffusion in planning artificial illumination.

Actual sunlight which has been referred to is a quantity unknown upon the earth. The source of sunlight is distant from the surface it illuminates by more than eleven thousand times the diameter of this surface. During the greater portion of the day about 15 or 20 per cent. of the total light received from the sun is diffused daylight, scattered from finely divided particles suspended in the intervening space between sun and earth. If this atmospheric condition were not present, the sky would be dark and spaces to which the light rays were not directly admitted would likewise be dark.

The eye will adapt itself to great changes in the intensity of daylight. A similar relative percentage change in brightness of artificial light sources

as now used would however be prohibitive. On account of the fact that the variation in intensity has but a slight effect upon the ease with which the average person can work under natural light, there must be some characteristic of daylight which under certain conditions will produce a much more marked effect upon the human eye than that previously mentioned. This fact is shown in many industries where the light used must be uniform in color value if not in intensity.

Color Quality of Daylight.

Light is radiant energy which in the form of waves of different lengths affects the nerves composing the retina of the eye. These waves express themselves as different colors. Average daylight or so-called sunlight is a clearer and whiter light than that from any artificial lighting source thus far perfected. When allowed to fall upon a prism, however, it is immediately seen that this white light is composed of seven visible and easily distinguished colors, namely: Red, orange, yellow, green, blue, indigo, and violet in varying proportions. These colors are the seven fundamental or visible spectral colors which form a part of the total radiation from the sun. This wave radiation or emission from the sun affects the human sight only in that portion of the spectrum between the red and blue limits.

The so-called infra-red and ultra-violet extremes of the spectrum, which lie on either side of these values of red and blue, form the larger portion of the radiation from artificial sources and due to their wave lengths they are lost to view. It can readily be shown that the most efficient illuminant would be one in which all of the radiation properly proportioned as to color would occur between the limits of red and blue and therefore would be visible.

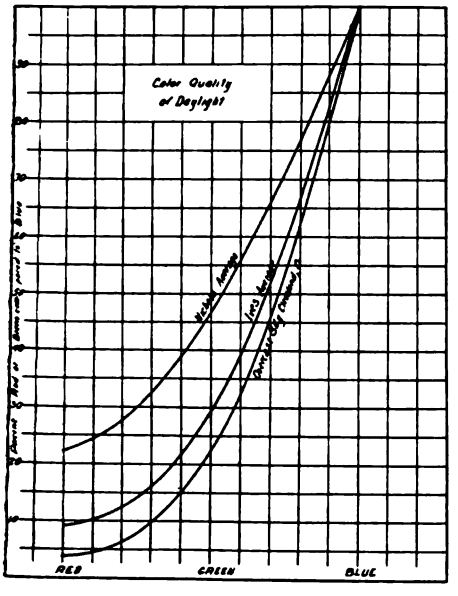
Daylight is composed of varying proportions of the seven visible colors. The greatest variation in the quality of daylight may be attributed to the varying percentages of these fundamental colors. In all forms of daylight a certain relationship exists between its different component colors. A relation remaining practically the same under most conditions is that the amount of blue light in nature is maximum while the red is minimum. Such a relation of the fundamental colors can be likewise noted in all growths in which the reds are produced to a less degree while the blues and violets are always apparent. Other primary colors composing daylight vary in amount between the two limits. A similar statement is true for all forms of light radiation whether natural or artificial; in the latter, however, there does not exist the same proportion of fundamental colors as in any form of daylight.

By exhaustive observation it has been found that any color of light can be duplicated by combining in various quantities three of the primary or spectral colors, namely, red, green, and blue. In laboratory practice as well as commercially by the process of trichromatic photography, it is shown that color shades and tones can be correctly reproduced by the proper combination of these three instead of the seven colors. This principle has been embodied in an instrument invented by Mr. H. E. Ives, and called the "Ives's Colorimeter." It is an instrument which gives correct percentages of the three primary colors composing the light from any of the present incandescent light sources. In this apparatus, the three primary colors of light are combined by a so-called color mixing device and allowed to

fall on one-half of the field in the instrument, the other half being illuminated by the source under test.

By regulating the proportion of the three colors, Dr. H. E. Ives, of the Bureau of Standards has duplicated the color of average daylight and has likewise made accurate determinations by this method of the proportions of the three colors comprising the light from any artificial sources. His results are given in a paper presented before the Illuminating Engineering Society.

FIG. 1



Several other investigators, have likewise made measurements which show that the value of blue light composing the average daylight is much in excess of that obtained independently by Dr. Nichols and reduced to same basis as measurements made with colorimeter.

As previously stated, and as shown by the curves in Fig. 1, it is readily seen that the proportion of the three colors of light composing daylight is so variable that a standard for average daylight would be difficult to obtain. How variable this standard is, may be more readily appreciated if one compares a series of colors as seen in the light of a north window with the same colors as seen at a west window in the light of the late afternoon sun. Not only do the natural conditions of the atmosphere produce such great changes in the color value of light, but it must be recognized also that certain conditions affect this quality as much or more than atmospheric changes. The causes of variation in the color of daylight entering any space may be tabulated as follows:

CAUSES INVOLVING THE SKY ALONE.

1. Clear blue sky.
2 Cloudy sky.
3 Overcast sky
4. Natural conditions due to rain or snow.
5. Natural conditions due to dust or suspended particles.
6. Artificial conditions due to smoke or chemical vapors.

CAUSES INVOLVING THE SURROUNDINGS.

1. Condition and color of surface of ground.
2. Trees, shrubbery, or gardens in proximity.
3. Walls of adjacent buildings.
4. Character of windows or openings for the admission of light.

The color quality of light which enters any given space may vary in any of the three fundamental colors composing it as much as 20 to 30 per cent., according to changeable conditions of atmosphere and surroundings. For this reason, it can readily be understood that a standard of daylight has not yet been obtained to which artificial illuminants may satisfactorily be compared.

The variations which have been mentioned allow of enough changes to take place to make daylight of different qualities unserviceable for some classes of interior work. There are relatively few art studios and shops where articles of delicate color value are sold in which it is possible

to make a proper comparison of colors on all occasions. This is due to the many varying conditions affecting the quality of daylight which enters.

It is apparent that more consideration should be given to this characteristic of daylight when it is compared with artificial illumination. Not only should this condition be taken into account in art galleries and other locations where the color of decorations plays an important part in making the sales, but it should also be considered in home interiors, offices and other places where the color plays an important part in the harmonious appearance of surroundings. For instance a man living in a city should be interested in the color which a neighbor paints his house, as it greatly affects the light received through his side windows. Decorative effects are greatly varied by the condition of the color of the surrounding buildings, etc., to such an extent that when the sun's light is reflected from a light colored surface such as a snow-covered ground or a white wall of a building, a flat indistinct appearance is given to interior effects. With an exterior ground surface of a soft color tone from which the light is reflected to an interior, the quality of light reflected produces a color effect which greatly improves the interior appearance.

Direction of Rays of Light.

The directional relation of natural light plays a very important part in the general appearance of any surroundings. Maximum daylight is usually received in a plane approaching more nearly the vertical than the horizontal, causing shadows and high lights to appear in correct proportion.

On the other hand, an extremely flat effect would be caused by a light with almost complete diffusion, caused in nature both by the presence of suspended dust particles, clouds and many reflections from surrounding objects. A very similar effect is produced when the difference between the lights and shades is too highly accentuated as in the case of objects illuminated by a search-light.

It is seen from this that there is a necessity for directing light into such locations that there will be sufficient direct as well as diffused light to make a harmonious shading from high light to shadows without a marked change from one to the other. Shadows may be considered by some as unimportant, because it appears that a person can see almost as well in diffused sunlight, caused by clouds, as in direct sunlight.

On days when there is no direct sunlight there is considerable shadow but there is a less sharp contrast between light and shade because of the gradual character of the change. Were it not that shadows are always present, the work of the architect would not appear very artistic, particularly in exterior work. In interiors the numerous windows acting as light sources cause complex shadow effects, making the problem of illumination with the proper proportion of light and shades more difficult. The adoption, however, of the principle of taking exterior conditions into account, would, no doubt, have a marked effect.

Shadow depends upon direction of light. If the illumination of the lower, or less illuminated, portions of an object in daylight were interchanged with upper or more illuminated portions, the object would be almost unrecognizable and constitute a negative picture. Reverse the condition and it at once stands out in detail. With perfect diffusion, however, we would have none of this light and shadow effect, which make an object plainly visible.

Ability to Reveal Detail.

This question of having the proper direction of light in order to make objects visible, invisible, or of revealing detail, has a direct bearing on the question of visual acuity. The color value of light in making possible fine distinctions of detail plays a more or less important part in the physiological effect produced upon the eye. It is found in daylight that a person doing work which requires a proper consideration for fine lines and detail will not depend upon the direct light from the sun but will in all cases seek a diffused illumination. This may be obtained in a shadow or from a portion of the sky, which is not the brightest. In reading a person will always prefer the light obtained from a window, which is not receiving direct rays of the sunlight unless a shade or curtain of some kind obstructs the direct rays and softens them in intensity and color value. It is true that different eyes are affected differently. Some require more light of one quality than others but in the majority of cases it must be noted that light, for proper purposes of reading or fine distinction, will be within certain limits of intensity and must likewise be of a certain quality and diffusion to allow the least possible direct light to enter the eyes of the observer.

In dealing with the subject of visual acuity or power of revealing detail, with lights of different color value, the effect of large light variation must be considered. Most commercial sources of light due to slight causes vary so greatly in their individual characteristic color quality that it is found necessary, in order to properly designate the best light for given purposes, to turn to the primary colors and note which is best.

Most persons find themselves short-sighted for the light from the blue and violet ends of the spectrum. Patterns, when illuminated by red, green and blue light show that for the power of revealing fine detail with an accompanying ease of sight, the blue and green lights are to be preferred to the red for short distances. The red, on the other hand, is preferred by the majority of persons for revealing details at a greater distance. Keeping this principle in mind, it can readily be seen what an unsatisfactory effect would be produced if a red or blue-violet light were to be used for general illumination purposes. The important requirement for a light is then to be able to distinguish color values, fine detail, etc., with the proper intensity and direction, whether it be daylight or artificial light.

The qualities of efficiency and steadiness of light production apply more directly to artificial sources of light than to that of daylight. These qualities may be grouped beneath the heading of adaptability, inasmuch as all light should be readily adaptable to meet various requirements.

Adaptability of Light.

The light from the sun was primarily used for purposes of mechanical labor where the necessity of revealing fine detail, obtaining proper color quality, and intensity, were not required to such a great degree as they are at the present time.

On account of the requirements which have been developed in the progress of civilization, daylight has failed to answer for all purposes, due to the fact that our vocations must be pursued at all times without depending upon daylight. For this reason the adaptability of all sources of light, including both natural and artificial, must be given proper consideration.

It has been necessary to use prismatic glass and to adopt an entirely new construction of building and skylights, in order to use natural daylight for such classes of effort as are generally undertaken for manufacturing and industrial purposes. It is true that artificial illuminants must be adapted for more diverse purposes than daylight. They must likewise be directed in such a matter as to meet all interior requirements. Practically all commercial illuminants have been designed with this thought in mind. The ideal light source, on the other hand, must have such qualities of color and ability to reveal detail, such intensity and direction of maximum rays, as to make it capable in all conditions of service to meet certain requirements depending on the conditions surrounding the work for which they were intended.

Artificial Illuminants.—Having discussed the various characteristics of daylight in comparison to artificial light relative to the previously mentioned qualities, we shall make a few direct comparisons. The characteristic qualities of daylight will be compared with the similar qualities of the following illuminants in an endeavor to determine from the standpoint of adaptability which is the best for given conditions:

1. Carbon treated filament lamp.
2. Carbon untreated filament lamp.
3. Gem metallized filament lamp.
4. Tantalum filament lamp.
5. Tungsten filament lamp.
6. Nernst lamp.
7. Enclosed arc.
8. Upright gas arc.
9. Inverted gas arc.

The light flux of all these lamps was so different that no attempt was made to determine their candle-powers. The endeavor was made to obtain the actual effects of the quality of light produced by these sources. The brilliancy of any of them is so far below that of the sun that the impossibility of obtaining comparisons in intensity between those and the sun is readily apparent.

In referring to the intensity of the light sources investigated, the advisability of placing a light source of high intrinsic brilliancy a sufficient height above the floor level of any space, in order to benefit by the principles previously noted regarding the sun, is self-evident. An alternative, likewise possible, is to reduce the intrinsic brilliancy of the source by using glassware of proper design and intensity to increase the diffusion of light and to decrease its brilliancy. By the use of this principle, the necessity of resorting entirely to height in order to produce a sufficient diffusion of light is eliminated.

The question of the color value of given commercial light sources is one which has caused more diverse opinions to be raised than any other quality of artificial illuminants. All artificial light sources have a characteristic quality of color which is apparent from observation. The color of the illuminants investigated may be tabulated as follows:

1. Carbon (new)	orange-yellow.
2. Carbon (seasoned)	yellow.
3. Carbon metallized (new)	pale-yellow.
4. Carbon metallized (seasoned)	yellow.
5. Tantalum (new)	yellow-white.
6. Tantalum (seasoned)	lemon-yellow.
7. Tungsten (new)	cream-white.
8. Tungsten (seasoned)	yellow-white.
9. Nernst Lamp (new glower)	pale-lemon-yellow.
10. Nernst Lamp (seasoned glower)	deep-lemon-yellow.
11. Enclosed Arc (opal outer, clear inner globe)	bluish-white.
12. Gas Arc, upright (new mantle)	pale-greenish-white.
13. Gas Arc, upright (seasoned mantle)	pale-greenish-yellow

The colors of these sources are not readily apparent when used for general illumination purposes. Nevertheless,

when a given series of colors is viewed beneath the light from any one of them which in each case is compared to the similar result under daylight illumination, it is evident that the effects produced vary a great deal from the true color values as seen under daylight illumination.

Color photographs taken under constant conditions of exposure, intensity of illumination, and direction of light upon plates employing the principle of the Lumière Autochrome process of color photography show that none of the artificial light sources obtain results equal to the daylight effect, but the best of illuminants can be selected by the correctness with which they produce the daylight effect.

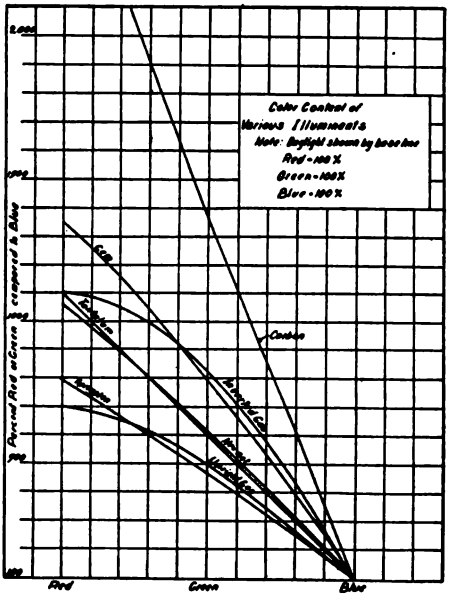
Another series of photographs, taken under similar conditions, show what a great effect the color quality of light has upon interior decorations, the most delicate of which may be illustrated by the colors of natural flowers.

The colors which compose the given color of light from each of the various sources used for these photographs can be seen from the curves in Fig. 2.

The true importance of obtaining the best form of illuminant in order to give the most desirable and attractive results for all classes of service may be observed when a comparison is made between the color effects produced by carbon and Tungsten illumination in comparison with that of daylight. The results show that a surprising advance has been made in the incandescent lamp industry in the endeavor to obtain a type of lighting unit which would cause objects to appear more nearly natural under artificial illumination.

Not only for store lighting but likewise for residence lighting the production of the proper color values and of the proper intensity and direction of light to give a pleasant appearance to interiors should be the general aim for all users of artificial light. Not only from the standpoint of the merchant but likewise from that of the architect, the interior decorator and furnisher, there is necessity for obtaining the best means to advance his efforts in artistic lines. This view should not be limited to mere financial ends for the use of light, but a lasting benefit should be gained by improving the standards for all classes of human effort in art and decoration as well as commercialism.

Fig. 2.



It has been shown that from the standpoint of direction of light there must be, for satisfactory illumination, not a complete diffusion but a balance giving the proper proportion of light and shade.

In order to obtain a determination of how different interior decorations are affected by the use of light of varied color quality, the effect accentuated to a certain degree may be observed by projecting on a colored curtain

the three primary colors of light—red, green, and blue. If the colors on the curtain and the primary colors of directed light were pure or free from a combination of color pigments forming them, those lines which were not illuminated by a light of a corresponding color quality, would appear black. This is easily appreciated; for the color which is seen, is only the impression received upon the retina of the eye by wave lengths of light which have not been lost by absorption after falling on the colored surface. The necessity for obtaining a proper proportion of colors forming the light flux emitted from an ideal artificial light source, whether alone or with the aid of glassware, is apparent. This proportion might not be that of daylight, but the colors composing the ideal light source should be such that there would be an equal or equivalent percentage of each of the fundamental colors.

A question has arisen among the users of light as to the actual effect of raising or lowering the voltage impressed upon an incandescent lamp. In changing the intensity and especially the color value of such an illuminant. By means of the colorimeter the effect of voltage on green, and the effect of voltage on red curves, were taken with the red 100 per cent. in each case, to show what the variation in the green and red fundamental colors would be. The closer approach to the value obtained with the daylight value shown by the base line in each case of the Tungsten lamp in comparison to the other incandescent light sources is very marked. Another detail not to be overlooked is that all of the electric incandescent lamps tend more nearly toward the daylight value as the voltage is increased above its normal value.

It is evident that the æsthetic tastes are sometimes appealed to by an incorrect use of illumination, in order to impress the observer with the beauty of surroundings. A more useful result would, however, be obtained by making the most practical efforts to impress the user of artificial light with the necessity for living and working to his best advantage under conditions requiring the use of artificial light. Owing to the inability of natural light to meet our modern requirements for constancy of intensity, color value, etc., it is obvious that artificial light sources correctly applied must be adopted.

ART TRAINING.

Being Some Remarks Made by Mr. Stevens, Director of the Toledo Art Museum, at the Sixth Annual Meeting of the Professional Photographers' Society of New York.

In my work I have to come in contact with a great many artists and photographers, and many of the latter often express themselves as regretting the fact that they did not have the education or benefits and training of an art school. They always felt that within that training there was a magnetism, a magic key which would open up a door to them.

Now, perhaps, in a measure they are right. However, in the art school, or in the college, it is not what we learn or what we know, it is the knowing where

the thing is that we want to find, or know by realizing that it exists. If we know information exists we can get hold of it when we want it. We don't have to carry it around with us all the time.

There are men who go to art school and learn composition, harmony, balance and color, and all these things, and perhaps they give ten years of their life for learning it, and yet there are thousands, twenty-five thousand students I suppose, in Paris today, a great number of them Americans, but you don't find twenty-five thousand artists coming out every year. Perhaps five or six Americans are admitted to the Salon, and perhaps every other year one American is awarded a gold medal in that great exhibition. Perhaps ten men out of the thousands and hundreds of thousands of men from America who have studied art are represented in the Luxembourg. So where do these tens of thousands of men go who study art? They just fade away at the end of five years in the art schools of New York, Chicago, Paris, Munich, and Berlin. And what is the reason for it? They were not *artists* to begin with. They became draftsmen.

It's wonderful if you stop to think about it; but you don't get your art from the Masters, it must be in you. You may study with Whistler, but he does not draw anything for you; you may study under Chase, but he does not put down anything on paper for you. You put it down yourself. Perhaps he tells you about is once a month, and perhaps he doesn't say anything, and finally some of you will arrive at the knowledge that Mr. Chase or Whistler did not put it down for you, but that it comes from within each one and each one has got to do it for himself.

Men in art schools get it from each other, the same as when you come here and get ideas from each other; but each has a way of expressing it, and here, gentlemen, let me say the getting together is the thing. One man has it in him and imparts it to another. You don't know how a popular song spreads through the country, but you know you don't go to school to get it. It flits through, from elbow to elbow and from brain to brain, until you can hear it everywhere, and you don't know how you got it, but you did get it. That's like art. The whole thing to remember is that it is there and you can have it if you want it. I suppose you fellows here in this great Empire State have got more of it than the fellows out west.

There are some fellows who might feel that they have not got it, but I believe it is there and they are just trying to find out about it. I know I am. I have spent twenty years studying composition, and I came all the way from Toledo to hear what Chase has to say on the subject. I think I can learn something that I do not know about it.

Once, when I was talking to an artist, I asked him about a certain composition and how he got it. He replied, "I don't know how I got it, really." Harrison said he did not know about the science of composition, but he sort of felt it. And he did feel it, but he don't know how he got it.

Munkacsy should know something about composition. At one time, when Munkacsy was at work on "The Last Hours of Mozart," a painter friend went into his studio and found him before the great canvas which was purchased by Senator Aldrich, of Detroit, and which is now in the Museum of Art. As I said, he was before this great canvas, and he had a piece of plate glass, a cane, and a coat of some kind thrown over the back of a chair. With this piece of plate glass he was walking up and down in front of the canvas and moving the glass backward and forward over the face of the canvas. If

you remember the picture, you will recollect that to the left Mozart is the principal figure, and on the right is a quartette in knickerbockers and white stockings rehearsing for the edification(?) of Mozart. Now those white stockings on those eight legs were not satisfactory to Munkacsy, and he was trying to get rid of them. He was moving this plate glass and those other things backward and forward in front of that picture trying to get the best place for them, trying to get the result he was seeking. He probably had it in twenty positions, and he asked every fellow who came in there where he thought it ought to be; how far it ought to come forward or how far go backward; until at last he got it where he was satisfied. He had probably been putting in thirty years on composition, but he did not know just the best place to put those things. Now, today you will find the cane is across the legs! That is but one of the laws of composition, but there are other laws which govern the planets in their flight.

Now these things have always been taught in the art schools, but men can only get on the right track there. There is no great mystery in schools: men work together there for months and just get ideas, and each one executes according to what is in himself. In the making of art there is no royal road, no special road for photography.

The photographer can go just as far as the man who works in pastel, etching, or pigment. There is no limit as to what the man with the camera can do. There are thousands and thousands of draftsmen, but you never hear of thousands and thousands of masters. In any art centre there are thousands of draftsmen who can draw a figure in any position and draw it correctly, but they are not artists. Something else makes the artist. The camera is a draftsman, and perfect; but it does not make the artist. It is something else and that something else belongs to you, just as much as it belongs to any other. You have got to realize that you must get it yourself. No one can put it into you. You must first realize that it exists; that certain laws governing it exist, and that you must know them. It is easy enough to get it; perhaps not in the first art book that you pick up; you must live with it continuously.

Don't believe what every fellow tells you, even if it be put in cold type; because a fellow oftentimes sets down what he thinks, and it is taken as gospel truth merely because it is set down. The man generally knows very little about it. However, read everything, and then digest it for yourself. Read everything on the history of art that you can. Perhaps this sounds as if I were talking to the infant class; but I know I am not. Study the history of art, and in that way will you get to know the whole thing.

It does not come to you in a moment, this knowledge you are grasping for. It did not evolve at once. Art is hundreds of years old. It dates as far back as the cavemen, two hundred thousand years ago, who drew animals on the walls of the caverns in France, and who really depicted the movements of the feet of reindeer, as is proven now by instantaneous photography. Perhaps this was because the caveman was almost an animal, and had nothing but his brains and rude implements to fight with, so that is how he saw those rapid movements. They saw those things which artists in America and Europe have now commenced to set down accurately.

But this was a slow evolution. The caveman disappeared and in the renaissance of the stone age, men were not drawing animals as designs upon chairs and upon rude implements. They forgot all about drawing things of life, and away down through the times of the

Egyptians, the Syrians, and the Babylonians men were trying to represent figures; but in five thousands years of evolution they never got the figure but that it had its feet tied. They impressed you with size, not motion; they did impress you with great size.

Five thousand years, and they hardly separated the arms from the body. Then the Greeks came on. First they placed a smile upon the features, then they freed the arms from the sides, then they made the figure resting on one foot, and finally they turned out works of art—our ideals today is sculpture. Then came the dark ages—a thousand years during which time seemed to have forgotten every bit of art. Then the awakening, how slow it was! For a hundred years or more they hardly changed the composition of the Virgin. Every man in every succeeding generation did exactly as the man before him. It was a slow process. Then one man worked away from those ideas.

Then there was another hundred years before they commenced the study of anatomy, and another hundred years before they knew anything about perspective, and generation after generation passed before the general knowledge we possess today. That knowledge is yours, just as much as it is the painter's; but you have got to go after it. Very often we think it is useless, folly, and stuff. There are rules, and many of them, and every rule can be broken, sometime or other, by a Master and still make a good thing.

A WHISTLER EXHIBITION.

An important and interesting exhibition of a selection of paintings—mostly portraits—by James McNeill Whistler, is being held at the Metropolitan Art Museum, New York. Photographers in and about New York should make a point of attending the exhibition. Among the pictures shown are the originals of three of the illustrations to Sidney Allan's "Whistler" article in our April issue. The following notes are taken from the *Bulletin* of the Metropolitan Museum of Art:

The first exhibition devoted entirely to Whistler's works consisted of thirteen paintings and fifty prints and was a "private view," held in London at 48 Pall Mall in June, 1874. In 1881, half a hundred pastels were shown at the Fine Art Society, in Bond Street, and in 1883, fifty-one etchings and dry-points at the same place. Two small exhibitions were held in 1884, one in Dublin and one in London. The years 1886 and 1889 each saw an exhibition in London, and in 1892 was exhibited a group of forty-four "nocturnes, marines, and chevalet pieces," for which the painter himself prepared the catalogue. Between this last date and 1904 only one exhibition —and that of lithographs—was held; but in the years immediately following that of Whistler's death, 1904 and 1905, occurred the most important assemblages of his works—the memorial exhibitions of Glasgow, Boston, Paris, and London.

As is very well known, Whistler took a great deal of interest in the arrangement of his exhibitions, making some of them occasions for the teaching of his views in new and original ways. With a love of detail, he neglected nothing and devoted no little attention to the production of his catalogues, physically as well as spiritually.

The brown paper covered catalogue of the exhibition of etchings held at

the Fine Art Society's gallery in 1883, was issued with the imprint of the artist's home in Tite Street, Chelsea, and has been taken to represent his peculiar views of typography as well as of hoisting critics with petards of their own making. After the title of each etching was printed a quotation from some criticism under the general motto on the title-page, "Out of their own mouths ye shall judge them." The gallery on this occasion was hung with white and yellow, had yellow matting on the floor, yellow chairs and yellow flowers in yellow pots. The attendant at the door was in yellow and white livery, while the artist wore yellow socks, and his assistants, yellow cravats.

For the catalogue of the exhibition of paintings held in 1884, Whistler prepared a page of "propositions" called *L'Envoie*, which we quote elsewhere, and he repeated in the catalogue of his "heroic kick in Bond Street" in 1892, the use of quotations from the critics for each title entry under the general texts, "The Voice of a People," and a sentence from the speech of the Attorney-General of England on the occasion of the Whistler *vs.* Ruskin trial: "I do not know when so much amusement has been offered to the British public as by Mr. Whistler's pictures." The artist triumphed in this exhibition of his pictures and his wickedness in showing through the published extracts from criticisms the futility of many of the early judgments is seen to lie deeper than humor—to be his conviction of his own worth.

The first New York exhibition of work by Whistler was made by Messrs. H. Wunderlich & Co., in March, 1889, when sixty-two "Notes," "Harmonies," and "Nocturnes," were shown with all the accessories of yellow hangings, flowers, furniture, and footmen of the exhibition in London in 1883.

In arranging the present exhibition no attempt has been made by the committee having it in charge to include the prints, either lithographic or from etched plates, which many of his admirers consider entitle the artist to rank with Rembrandt and the greatest of the masters of this art, nor yet to embrace a large number of his pastels and paintings in oils. Only so many paintings and pastels have been included as serve to show the development of the painter's art in these mediums, through the best obtainable examples—up to the limit of the space at our disposal, namely, the large central hall in the recently completed wing on Fifth Avenue. In general excellence of the selection, the collection may be compared to the exhibition of Whistler's own arranging, held in 1892.

The paintings here shown number 31 in oils and 15 in pastels. They will remain on exhibition until the end of May.

Propositions by James McNeill Whistler.

A picture is finished when all trace of the means used to bring about the end has disappeared.

To say of a picture, as is often said in its praise, that it shows great and earnest labor, is to say that it is incomplete and unfit for view.

Industry in Art is a necessity—not a virtue—and any evidence of the same, in the production, is a blemish, not a quality; a proof, not of achievement, but of absolutely insufficient work, for work alone will efface the footsteps of work.

The work of the master reeks not of the sweat of the brow—suggests no effort—and is finished from its beginning.

By Endean, New York

By Endean, New York

By Endean, New York

By Morgan, Aberdeen, Scotland

By Mishkin Studio, New York

1. Woman in Pink

Illustrating Sidney Allan's Article

6. A Butterfly
7. Study in Green and Black
8. Mrs. Herman Duryea
9. A Quiet Hour

Illustrating Sidney Allan's Article

2. Portrait
3. Mrs. Clarence Mackay
4. Decorative Panel
5. Woman in Gray

Illustrating Sidney Allan's Article

MASTERS IN PORTRAITURE—JOHN W. ALEXANDER.

BY SIDNEY ALLAN.

COMPARATIVELY few American portrait painters have achieved an international reputation. Vinton, Chase, MacCameron, and Cecilia Beaux, all aspire to this distinction, but John W. Alexander is the only one whose paintings have been purchased by numerous museums in Europe and America, who is a constant exhibitor in international picture shows, and whose art (which is more important than any material success) represents an individual style, that is recognizable at the first glance. A John W. Alexander will never be mistaken for the work of any other painter.

His strength and originality, as a portraitist depends largely on line arrangement. Also his color schemes are unusual and interesting, but we cannot appreciate these qualities in black and white reproductions. It is the management of lines, the invention of curious shapes, and the ever varying combination of unusual curves that fascinate us in these pictures. He is a remarkable manipulator of women's gowns. Each figure represents a new and generally successful experiment, and I know of nobody who can twist a modern tailor-made gown into more curious and unconventional folds. Look, for instance, at the long sweeping curves in Figs. 3 and 4; or the bulky shape of Mrs. Herman Duryea's dress (Fig. 8).

John W. Alexander has learned much from Japanese prints. He has a wonderful finesse of line and sacrifices everything to it, even the facial appreciation. He flattens the pictures, and they are often mere pleasant spots in the general arrangement. The spacing is frequently faulty, or rather awkward, as in Figs. 2 and 3. The figures do not fill the space. The silhouette of Mrs. Clarence Mackay's figure against the background is not particularly graceful. It impresses one as being odd and queer, and the background is too empty and monotonous to offer any relief to the dominant lines of the figure composition. There is no harmony, as in Fig. 4 which is composed on very much the same principles. In Fig. 4 the figure fills the space; the figure is larger and the upright shape of the canvas narrower than in Fig. 3. But the principal reason, I believe, is that this picture is treated as a decorative panel and not as a portrait. The painter could take greater liberties. The head, excepting its peculiar downward position, is of no particular interest. The costume, on the other hand, is more picturesque, almost Oriental in tendency, and by introducing a landscape background the picture gained in harmony.

Also Fig. 2 is an unsatisfactory composition. The placing of the figure toward the left, losing a part of the train and the hem of the skirt in the lower left corner, is a novel treatment and could produce good results; but the contours of the skirt are too straight, and its triangular shape so large that it spoils the rest of the composition. The pose, although ordinary, is natural enough, and enhanced by the application of rectangular lines in the background.

How much more pleasing to the eye is the treatment of the skirt in Fig. 5, the famous "Woman in Gray," which represents the American painter at the Luxembourg Gallery in Paris. There the four principal lines have a beautiful sweep, and are cleverly supplemented by the parallel lines of the sash and trimmings and the accent of shadows at the folds and under the hem. The balloon-shaped effect is rather exaggerated. I do not believe that a woman's skirt would easily assume such a curved and expanded appearance, but a painter has the advantage to follow the whims of his fancy, and as Alexander is particularly fond of peculiar line effects, no fault can be found with this somewhat exotic interpretation. It exaggerates the feminine element in a woman's dress, and reminds us vaguely of curious fashions of former historic periods. The figure is exceedingly well placed, and the division of the background into light and darker planes helps the grayness of the figure. The treatment of the profile, hair, and the details of the waist are most effective, but the head is badly drawn.

The "Woman in Pink" (Fig. 1), at the Pittsburgh Art Institute, is one of Alexander's finest efforts. It is a very fine specimen of profile composition, and the feeling of line is exquisitely rendered. I have discussed this painting at length in my *Composition in Portraiture* and for that reason will refrain from any further explanation at this instance.

Quite remarkable is also the "Study in Black and Green," Fig. 7, at the St. Paul Art Galleries. It is beautiful in values, and the tendency of broken lines and angular undulation furnishes quite a contrast to the painter's usual preference for long uninterrupted curves. Of course, these pictures, Figs. 1 and 7, as well as Figs. 6 and 9, can hardly be classified as portraits. They do not give sufficient prominence to the face. The drapery invariably furnishes the principal note of interest.

In Fig. 6, called "A Butterfly," the lines are a trifle confused. There is a fine sweep and suggestion of motion in them, but the conception of the picture is so sentimental and overesthetic in character that it should never be tolerated in portraiture or any single figure composition.

Fig. 9 offers a beautiful combination of curves. They flow around the figure with astonishing ease, and yet do not obliterate the correct proportions of its form. In this picture everything is well related, and, after all, sufficiently simple to produce an harmonious and poetical effect. Pictures in this order, notably Figs. 1, 7, and 9, should teach to every picture maker a lesson of delicacy and grace.

Fig. 8 is a genuine portrait. The chair looks rather small, and the hips of the lady seem to be badly foreshortened. I wonder if the artist did not utilize a photograph in the painting of this picture; the photograph was out of focus, and the painter forgot to remedy the error? In every other respect the composition is above criticism. Alexander possesses to a preëminent degree the gift of utilizing the human shape in such a way as to produce an interesting silhouette against the background. Unlike Whistler, he does not lose any part of the contour of the human form, but, on the contrary, accentuated the linear beauty of every limb, and every prominent feature of a dress.

Alexander has a frank appreciation of external character, and he uses his sitters as objective facts, he sees them as curious, unusual shapes, and emphasizes every beauty of form that will help him toward some new and charming linear interpretation.

A SKYLIGHT PLUS ELECTRIC LIGHT.

THE fifty-dollar prize awarded annually by the Professional Photographers' Society, of New York, for the best idea or device applicable to studio work, was this year awarded, with acclamation, to Mr. Howard D. Beach, of Buffalo, for his idea of wiring the ribs of his studio skylight to take a series of electric incandescent lamps.

Through the courtesy of Mr. Beach we are able to show, by two photographs, the arrangement of the lights. The following data is also supplied by Mr. Beach: Twenty-four Tungsten electric lamps with Holophane shades or reflectors are attached to the ribs of the skylight. The lights are in four tiers of six each, so that any tier of six can be turned on or off with a button, or all operated at once by a switch conveniently located. Twenty of the lamps are 100 watt power, and the four lower lamps of 250 watt power.

The lamps are spread three feet apart horizontally and two and a half feet vertically, thus making squares of two and a half to three feet. In this way the light is increased in force without being changed in direction.

The wires are strung through metal tubes running close to the ribs and are invisible. The lamps with their shades give the otherwise bald skylight frame a decorative effect.

The object of having the lamps directly under the skylight will be readily seen. After you have posed the subject and are ready for the exposure, and think that a little more light would help, all you have to do is to turn on the lights and not a single change regarding screens, etc., is required. This saves time and patience, as the studio is never upset and changed about when additional light is required.

The light is usually running through the entire sitting, even when the sun

is shining, as the rays from the Tungsten lamps have a decided color value and act much in the same way as a yellow screen on the lens without prolonging the exposure. For copying oil paintings the results are much better than when daylight alone is used.

Another advantage of the system is that ladies like it, because they are conscious that their dresses and jewels look better under an artificial light.

Mr. Beach was not only glad to explain his lighting system for the benefit of the members of the P. P. S. of N.Y., but returned the fifty dollars awarded him to the somewhat depleted treasury of the Society.

SOME NOTES ON ENLARGING.

Artificial light is the only kind that is reliable in the winter months, but workers accustomed to daylight enlarging often meet with troubles when they change to the other method. These troubles are mainly in connection with the use of comparatively weak, large illuminants, such as incandescent gas, with which many fail to obtain such good focus as they are accustomed to see in enlargements made by daylight. With a powerful light such as the arc or limelight this trouble disappears, provided the light is properly adjusted; first, because the brilliance of the light enables us to see more readily when the image is sharp upon the screen; and secondly, because the smallness of the source of light tends naturally to produce sharper definition. We are assuming, of course, that the apparatus employed is the usual enlarging lantern, which is the most convenient form to use, and is now obtainable at very moderate cost. For the sake of illustrating the cause of the unsharpness which may be produced with a large light, we will, however, briefly consider another method of enlarging in which this effect is at a maximum.

Suppose we have an enlarging camera of the type often used for daylight enlarging. In such a camera the negative is at one end, the bromide paper at the other, and the lens in the centre, the whole being so enclosed that we can take the whole apparatus out of doors and expose by simply directing the negative end to the sky. Used indoors, we can expose similarly by lighting in succession a number of strips of magnesium ribbon, and moving them about behind the negative in such a way as to ensure the even illumination of the whole of it. In this case we are, in point of fact, using a source of light as big as or bigger than the negative itself, and we shall find it practically impossible to secure critically sharp definition over the whole of a big enlargement, even though the same negative will yield a perfectly sharp result on the same scale when we use an arc light or limelight with condenser. The reason of this is not very difficult to understand. The photographic image is not a very extremely thin structure, and a narrow black line in the negative has thickness as well as width. Strip the film from the plate and we see at once that it is of a very perceptible thickness, and if we consider that our assumed narrow black line consists of silver, which most probably extends through the whole thickness of the film, it is apparent that a very narrow line may actually be thicker than it is wide, that is to say, it may be compared to a narrow ribbon set edgeways in the

gelatine film. Similarly, a very narrow white line in the negative, such as will exist in a negative of a fine line subject, may be compared to a narrow trench with side walls of silver. Suppose now that we have a source of light behind this white line, then the sides of the trench will be strongly illuminated by the light falling obliquely on them, and they will reflect so much light that they will become reproduced in the enlargement, with the result that the image of the line becomes widened or made less sharp. If the light falling on the line is parallel and at right angles to the plate, it is obvious that the sides of the trench will not be illuminated at all, and therefore in the enlargement the line will be at its thinnest. This condition can be more or less secured in daylight enlarging, while with a very small artificial light and a good condenser, we can also approach nearly to it, but with magnesium used as described we get about as far away as possible from the parallel condition. We may say here that we are by no means dissatisfied with the effect produced by the ribbon method, which is one we have used a great deal. The definition given is soft, but not on the fuzzy side, and it is about the kind of definition we like to see in an enlargement. On the other hand, the sharp-cut outlines that would be produced by the use of a small light, or of daylight, are quite absent, and must not be looked for; amateurs are, however, apt to grumble at their absence and to condemn the lenses, etc., which they assume to be responsible for the loss of critical sharpness.

The incandescent gas mantle comes between magnesium (used as described) and the small light source as regards size, and gives a medium amount of sharpness. It is capable of giving all the definition that is really desirable, but it will not give the absolute sharpness that is so readily obtained with the arc light always used by professional enlargers. The gaslight is, however, a relatively weak one, which fact often renders it difficult to focus with it, and so leads to a lack of sharpness. To get over this trouble it is a good plan to secure focus first with a specially thin sharp negative or simple ruled screen. If the negative is then inserted in place of the special screen, and in exactly the same position, the image should be in absolutely sharp focus. Very often, however, it will not be, owing either to defects in the apparatus or carelessness on the part of the operator. The plate-carrier has to be removed to change the plate, and when replaced it may not occupy exactly the same position; that is, it may get slightly out of register. If there are no springs to force it into the same register every time, some thin wedges should be used. It should always be so wedged, or otherwise fixed as to render any shaking or wobbling quite impossible. Then, again, the two plates must be exactly in the same register, and as the negative has usually to be inserted with the film side away from the light, and the film must rest on the rebate of the carrier if different plates are all to be in the same register, the carrier must be arranged so that the plates are inserted from the back; that is, from the condenser side of the carrier. Very often this point is forgotten. The carrier is used the wrong way round, and so the negative and the test-plate cannot be in the same register unless by pure chance they happen to be on glass of exactly the same thickness.

Yet another cause of want of focus is the wrong adjustment of the light. Photographers generally know that the light must be perfectly adjusted to get a bright, evenly illustrated disk on the screen, but they often fail to realize that perfect focus is only possible when the illumination is at its best. The reason for this we cannot go into, as it involves some obscure optical matters, but it is

very important to understand that the same conditions that give a "bad disk" also disturb focus. It is necessary to look very carefully after the adjustment of the light, and it must not be forgotten that readjustment is essential if the scale of enlargement is altered. If we attend carefully to the registration matter and also to the adjustment of the light, we can get very critical definition from a really sharp negative if a small light, such as the limelight or the arc lamp, is used. If we take the same precautions with the incandescent mantle we can also get very excellent results, though we must not expect quite the same degree of sharpness; if, however, we neglect the precautions mentioned, then the lack of sharpness due to bad register and badly adjusted light may be added to that peculiar to the use of a large light, and so we may secure only a very poor result. With a powerful small light any defect in light adjustment is so strongly evident in the screen that it cannot well be overlooked, while the strength of the light renders it comparatively easy to focus without a test-plate, and so the registration trouble is avoided.—*Photo Notes.*

A DEVELOPER FOR PORTRAITURE.

ADMITTING the well-known characteristic of metol and hydrokinone as developing agents, I venture to say that I have experienced the working of these two agents to be rather unsuited for developing portraiture, although I am perfectly aware that it is used extensively for this purpose among amateur photographic enthusiasts, perhaps because one constantly comes across advertisements and recommendations as an all-round developer. For a number of years I have used metol and quinol for bromide papers, and am fully convinced that for this particular process the result cannot be surpassed by any other agents, or even equalled, but for the class of negative required in portraiture it has no comparison with the old agent, pyrogallic acid. The amateur's great mistake in plate-making is that incessant determination to produce the so-called soot and whitewash negative, and to get out of the dark-room as quickly as possible. Quinol being rapid in action, and metol having powerful density-giving properties, induces the amateur to continue its use, especially the snapshot photographer, who in most cases under-exposes his plates. I have known beginners insert a plate in the developing solution, and if the image has not made its appearance in a few seconds, it has been thrown under the table in disgust. I have myself sometimes taken as long as three-quarters of an hour to develop a portrait negative with a dilute solution of pyro, but have been highly pleased with the result. Patience is indeed essential to the man whose aim is for something beyond the ordinary, and even if he has to rub his eyes after leaving the dark-room to scrutinize the quality of the negative, the result will, in all probability, merit his confidence.

A SOLUTION OF PYRO.—Now pyro is said not to keep well in solution for any length of time, and for this reason many amateurs who perhaps only expose a few plates per week refrain from its use; nevertheless, I differ in this respect, as I am at present using a solution which has been stand-

ing for nearly six months. The solutions A and B apart are quite colorless and only when mixed do they show a pale lemon color, which does not affect the quality of the negative, or give rise to stain, when fixed in an acid fixing bath, which should never be omitted. The following formula I wish to recommend should be dispensed in exactly the order given, the metabisulphite being first dissolved in say an ounce of hot water, and afterward added to the bulk. I am not in the habit of making a stock solution of the pyro, but proceed straight away with:

A.

Pot. metabisulphate	1 drm.
Pyrogallic acid	1 drm.
Water (distilled)	20 oz.

B.

Sodium sulph. (cryst.)	6 drm.
Sodium carb. (cryst.)	6 drm.
Water (distilled)	20 oz.

For normal exposures use equal quantities of each A and B, which very rarely requires any restrainer, but where over-exposure is known a few minims of a 10 per cent. will be necessary. The above formula, it will be noticed, is a very economical one owing to its dilute form, which unpoubtedly is the secret to successful negative making, slow in working, but bringing out all the detail without excessive density.

THE FIXING BATH.—For the fixing bath the under-mentioned will be found to give perfectly clear results:

A.—Sodium hyposulphite	16 oz.
Sodium sulphite	1 oz.
Water (hot)	48 oz.
B.—Alum (chrome)	1 oz.
Sulphuric acid	1 drm.
Water (hot)	16 oz.

When the ingredients are thoroughly dissolved, and solutions cooled, pour B into A while stirring rapidly. This bath, if dispensed correctly, should remain quite clear, and can be used over and over again until exhausted, which will be observed when the negative shows sign of stain; it also has the properties of hardening the film, which has its advantage, particularly in summer time. The plate should remain in this bath at least ten minutes after it has apparently fixed out all whiteness from the film; after fixing wash the negative in running water for twenty minutes.—A. T. HALL.

DISTILLED WATER.

PROBABLY no article used in photography is so much misunderstood, both by amateurs and professionals, as distilled water. Many of the troubles in toning can be traced to the impure water with which the toning bath is made up, because the operators do not, or will not, understand the necessity of using distilled water. Photographers often ask: "Is it necessary to use distilled water in making up a toning bath; and, if so, why?" or else they make the mistake of thinking that boiled water and distilled water are one and the same thing; whereas a great difference exists. I have known an amateur to have almost the whole of his gold precipitated by using impure boiled water.

Water dissolves a greater number of substances than any other solvent known, and consequently is never found in a pure state naturally, even rain water being slightly contaminated. Possibly many of my readers will say: "If I

draw a glass of water from the tap, it is perfectly clear and colorless, and I cannot see any reason why I should not use it for toning." I agree that it is perfectly clear, and possibly at first sight it would appear suitable for toning; but I would ask anyone who thinks this way to try a few experiments first. Take 1 fluidounce of *distilled* water, and dissolve 5 grains of nitrate of silver in it; then take another fluidounce of *distilled* water, and add 3 grains of chloride of sodium (common salt); when the silver and sodium are quite dissolved, look through both solutions at the light. They are perfectly bright and colorless, and probably, unless you knew they contained something in solution, you would be prepared to declare they were both pure water, as there is not sufficient of the salts to be visible. Now mix the solutions; the mixture immediately becomes cloudy, and eventually we get a white precipitate of chloride of silver. This is exactly what takes place in another way, only the result is not so noticeable when plain boiled or unboiled tap water is used for making up gold baths, for chloride of gold is a very unstable salt (a necessary quality for a toning agent), ready to be reduced to the metallic state upon the slightest provocation; and in ordinary tap water this provocation always exists, which it obtains in the process of natural or artificial filtration, either from the strata through which it passes, from the filter beds, from the pipes through which it flows, and more especially if it is stored in a cistern. It is liable to contain iron, chromium, lead, and any other of the different salts contained in the strata through which it passes. By this means it almost invariably contains carbonate or sulphate of calcium. Boiling will remove the carbonate of calcium, or temporary hardness, by driving off the carbonic acid gas (without which water cannot dissolve calcic carbonate), and depositing the calcic salt at the bottom and sides of the boiler, as the "fur" of kettles, to wit; but, although boiling water will remove this impurity, it will not remove the sulphate, or permanent hardness, or any of the other salts which the water may contain, and which can only be accomplished by distillation.

A dark precipitate will sometimes be noticed at the bottom of a toning bath which has been made up with impure water and allowed to stand for some time. This precipitate is largely composed of metallic gold, and some idea may be obtained of the loss of gold, which much more than neutralizes the extra cost of the distilled water.

If pure, distilled water should be quite odorless, tasteless, and leave no residue when evaporated. Some distilled water obtained commercially is impure through being distilled in imperfect apparatus.

It is sometimes difficult in remote districts to obtain distilled water commercially, but small quantities may be distilled at home easily and cheaply. Water is distilled in a similar way to that by which spirit is distilled, and all that is necessary is a vessel to boil the water, a pipe to convey the steam, and a receiver to cool and condense the latter; for economy's sake, an ordinary fire can be used. A kettle, preferably a copper one, answers well to boil the water; one end of the tube is fixed to the spout of the kettle, and the other end dips into a glass or earthenware receiver, standing in water, or having water running over it, to keep it cool. In this way distilled water may be obtained easily, and at practically no cost, as the boiling may be done with the surplus heat of an ordinary fire. Really the only expense is the tube, which must be of brass, copper, or tin, the latter for preference; on no account must iron or lead be used, as *pure* water eats iron and lead away very quickly, and can be the source of considerable trouble.

SOME PHOTOGRAPHERS.

BY KENNETH ALEXANDER.

To BE really a pastmaster in photography means years of experience in every line, doing one thing day in and day out, to acquire a readiness to use some bit of detail work when called upon, and, nowadays, a man who is a good draughtsman, and artistic, has a big advantage. In my experience as a photographer I have worked in several large studios, and I will try to put into concise form what the methods of some of these men are.

Histed, about whom so much has been said and written, has the simplest method of any man I know of. His one and greatest means of attraction is the quality of his work. Here is a man who is absolutely a professional, and yet the Histed individuality is one entirely distinct from all others. The prints are low key, high key, and every conceivable effect; yet in them all there is that wonderful mellowness which we admire so much in the old English engravings and mezzotints.

Oh, such roundness! As a customer you must take exactly what he chooses to give. As for his business methods—has he any at all? The people of wealth come to him from all parts of the country and consider he does them a favor to take any notice of them. Strange, when contrasted with the way some excellent photographers have had to dig for every little bit of success! He has a very good rule of making all customers pay a deposit of $25.00 before they sit. This is the smallest amount of work he does, and be assured he does not sell a dozen for that price. His charges are $12.50 for the first print from each negative and $5.00 duplicates. These surely are top-notch prices, and they are accompanied by a volume of business too; without which high prices are of little use. But the great man of photography is not content. At the time I was one of his assistants, I was a student in the evening life classes. "Keep it up, son!" he said. "I used to study in the schools, and had I kept it up, I might have become a great painter." He is a collector of works of art, and any auction of account finds him present.

Pierce, of Boston, is another who has met with considerable success. He has the energy of about three put together, and a number of years ago came to realize the benefit to be gained from specialization, lifting at-home portraiture from out of the realm of makeshift into a beautiful style of his own. Could you look through the Pierce collection you would find no cut-and-dried effects—every picture a new one. We may not admire them all, but the great thing is, he pleases his own public. I know he does so from the nice large commissions he gets. I have seen him laugh up his sleeve when asked for his mode of procedure in securing this or that effect by a photographer who has learned lighting and posing by rule. Pierce just does what he wants without bothering how. Each light he works under is a different problem, but through years of experience he has become so used to that which is a setback to many would-be at-home portraitists, and it is now a big asset. He is an expert at fakeology, and of a negative *ordinary* mortals would throw in the waste-basket, sometimes, you will hear him exclaim: "Isn't that a beautiful picture!" (The last negative Pierce makes is always the

greatest.) He will put in touches to suggest the missing values, and print it carefully, some parts in the sun and so forth, and by the time he gets through, it is a beautiful picture. To get new effects you must be bold. This measuring of so much top and so much side light brings but a cut and dried result. Of course, the stumbling block is that you must have training and knowledge. Think, also, of a man travelling for many miles, in all directions, as he does, and the extra labor and detail work it brings. But he has a patronage in a dozen large cities, any one of which could be looked upon as a nice connection. Spring, summer, autumn, and winter are his busy seasons.

Of course, there are many others—Garo, MacDonald, Hoyt, Marceau, etc. Each have struck a note of individuality. Garo has combined great delicacy and tone value with brilliancy. MacDonald, whose pictures are so strong, and even Marceau, though having dozens of operators, has established a name for fine gown effects. He is getting results at the selling end, so his way of getting business would be well worth considering.

The London list of first-rate men includes Vandyk, Lafayette, Mayall, Ballingham, and the London Histed.

Vandyk has excelled, first, for his business ability. Twenty years ago his equipment was a second-hand camera and one dark slide; today, he ranks among the foremost. There are two studios, one in Kensington and another in Westminster. At the present time the business is largely in the hands of Mr. Vandyk (junior) who is adding daily a new coat-of-arms to his list of patrons. Soon he will have taken absolutely all the royalty of note. He employs over thirty-five assistants and personally attends to it all, the business being divided into departments, viz.: studio, commercial, publication—and a printing shop out of the city, where the light is more certain. There is a daylight studio and an electric-light studio, which is equipped with the most wonderful system of electric light—about eight arc lights behind a huge screen of ground glass—and three mercury vapor tubes on a movable stand. The rule is that he personally makes all sittings and uses two assistants in the studio. He has an operator who is responsible for the commercial side, such as photographing country residences. He is equipped and ready to do absolutely anything in the photographic way. Sometimes he will have an order from a titled person for portraits and miniatures and one or two life-size oils, also views of the estate and, perhaps, the old family heirlooms. By this means the final bill is at a very high figure, for his prices are higher than the majority of photographers in the United States. His enthusiasm for anything new is most marked.

Lafayette, Ltd., are in business in a large way, having studios in London, Dublin, and several cities in the North of England.

H. Walter Barnett is a man with Australian and American experience and is the last word on professional picture-making in London. His pictures show that he has a fine choice of subjects.

Mayall is situated right in London clubland.

The London Histed is not owned by Histed himself, but the work is of a very high order, mostly low-toned, with a predominance of professional people as sitters.

Ballingham is one of the personalities in London—arriving some years ago, when it was not considered a good city for pictures, both by the public and the photographers themselves, on

account of the fog. I used to be his chief assistant, and the following is somewhat his method: He has a large north light with green blinds and a set of pink curtains and a pink head-screen. The lighting for each subject he carefully considers, and with numerous screens he can get light of any quality and direction. Several specimen prints which have been selected by the customer are taken as a guide for the effect to be aimed at. The figure must be a size which fills the space artistically and must not be crowded. Few photographers consider this, for I have seen many pictures which look big, heavy, and coarse on account of insufficient spacing. The difficulty is to strike a happy medium so as to suggest the subject. By the attitude of the head, arms, and direction of the train, style and meaning can be given to it. All this, of course, is composition. The assistant has full charge of the camera, making all the exposures. This has its advantages, as it leaves the operator free to pay full attention to the subject. It is especially good with children, as you sometimes feel the need of about six hands, if they are especially lively. The assistant operator has to keep full account of the day's work—the condition of the light, what lens and stop were used, and so forth—so that on looking through the negatives everything can be accounted for. It is all a most excellent experience.

BROMIDE TONING.

BY ONS.

A VERY interesting and pleasing method of producing brown tints on bromide paper is as follows: The bromide print, which may be upon any kind of paper, but preferably paper such as Kodak Royal, is treated with a dilute solution of iodine, made by dissolving 5 grams of iodine in 1000 c.c. of water containing about 10 grams of potassium iodide. This solution can be used over and over again until exhausted. On placing the wet print in this bath it at once turns blue, owing to the formation of starch iodide, the starch being used to size the paper, and after a time the image will show as a yellowish-white negative image against the dark blue paper. When this is the case all the silver composing the image has been converted into silver iodide. The print is then placed, without washing, in a dilute solution of sodium sulphite or sulphurous acid. This will discharge the blue color, owing to the decomposition of the starch iodide. When all the blue color has disappeared the print is washed until free from sulphite, and for this reason the sulphurous acid is preferable, as its solubility is greater than that of sodium sulphite. After washing, the print is treated with an alkaline sulphide, polysulphide, sulphuretted hydrogen solution, or sodium thio-antimoniate (Schlippe's salt). The most convenient of these is ammonium sulphide, which can be purchased in solution at all chemists. The potassium polysulphide or liver of sulphur, which is used for precipitating hypo solutions, may also be used. These give a brown color; Schlippe's salt gives a foxy-red color. The color is due in these cases to the formation of a silver sulphide, and as this is a most stable salt, the results should be permanent. A solution of chlorine or bromine in water may be used in

place of the iodine, but as these are more difficult to prepare, and rapidly oxidize on keeping, and so lose their bleaching properties, their solutions are not so efficient as the iodine solution. When using Schlippe's salt, a yellow stain is frequently produced; this can be prevented by treating the print before the Schlippe's salt with a dilute solution of ammonia and washing. The ammonium sulphide of commerce will require diluting to one-tenth of its volume for use. Schlippe's salt gives the best result in a 3 per cent. solution.

THE PHOTOGRAPHING OF CHILDREN.

ENGLISH professional photographers are rapidly Americanising their Professional Photographers' Association. They held in London recently a Congress of Photography, and a report of the proceedings reads very much like the report of the Rochester meeting of the Photographers' Association of America. The meeting extended over five days and was attended by large numbers of photographers from England, Ireland, and Scotland. Many interesting papers were read and demonstrations given by prominent photographers. Mr. Richard N. Speaight, of Speaight Bros., who possess the finest studio in London and make a specialty of children, read the following interesting paper, which we have pleasure in reprinting from our English contemporary, *The British Journal of Photography*.—ED. W. P. M.

MR. PRESIDENT, LADIES and GENTLEMEN:

One of the most pathetic passages in the writings of our immortal novelist, Charles Dickens, is that where Dora, realizing her own limitations, beseeches David to carry her in his memory as his "child wife," and if, in the dim future, he should ever be tempted to look back upon her shortcomings, to remind himself that from a "child-wife" nothing but childish behavior must be expected. Now, just as Dora pleaded for a merciful judgment on the score of her childishness, so must I ask you to excuse the imperfections with which I fully realize this paper is filled, on the ground that I am only a Child Photographer; and as, in order to be successful with the little ones, one must be as a child oneself, kindly take this as from a boy, who, like the inimitable Peter Pan, has never grown up.

The more one comes into contact with children, the more one realizes how necessary it is to be able to enter into the mind of a child, and, to do this, one must be thoroughly imbued with the spirit of childhood. It is most essential to be steeped, at it were, in the literature of the nursery and the schoolroom. Not only must such classics as *Water Babies*, *Alice in Wonderland*, and *Peter Pan* be at one's finger-ends, but acquaintance should be cultivated with the modern creations of Peter Rabbit and Benjamin Bunny, as well as with the old friends of our own Childhood—Cinderella, Jack the Giant Killer, and Red Riding Hood. It is also necessary to be able to throw oneself into a mimic battle; many a successful portrait of a boy have I obtained while playing with soldiers and toy trains. But, as with everything else, one must move with the times, and today boys want something more than toy soldiers and clockwork trains. The electric motor or modern aeroplane will often put a boy right at

his ease where the less scientific toys have failed.

In the case of girls, it is necessary not only to admire their dolls, but to be able to compare them with your own, to sit on the floor and discuss the merits of the clothes and names of the respective playmates. Now to do these things in a way to gain the confidence of a child, one must have lived in the atmosphere of such things. On account of this, I always make a point of going to the children's plays and bazaars at Christmas time; for, just as babies of a few weeks old know if the person in whose arms they are resting is used to them, so does a boy or girl realize whether you enter into their games naturally or not. Just as the modern naturalist, Kearton, sometimes waits days, or even weeks to obtain a photograph of a bird in its natural surroundings, and has often concealed himself and camera within the framework of a cow or a horse, or has hidden himself within the hill mound, in order to be near enough to take the picture without arousing suspicion, so must one deal wisely with the little darlings whom we are discussing in this paper.

I propose, as far as possible, to illustrate the argument and advice I am putting forward by lantern slides. The first two pictures which will be placed on the screen are to show you what I consider the right and wrong way to approach a young child. It has always been my endeavor, not only in conversation, but in stature, when making friends with children, to meet them on their own level; for this reason I find that the less compass you can put yourself in, the easier it is to become friends.

In this first slide I want you to notice how in this picture, owing, I think, chiefly to our great difference in height, we do not seem to be as nearly at home with one another as in the next picture I am showing you. (Kneeling down to the child.) This is what I consider making friends properly. When you have got a child interested on these lines, one has every opportunity of studying a child's character and expression. The very fact of being on a level makes it much easier than if you had to look down. I would rather look up to a child than down; though sometimes this leads to awkward remarks. I remember on one occasion a bright girl of five calling out to her mother: "What funny hair the man has; it looks like smoke," If only mothers would take no notice of their children's remarks, they would be all right, but it is when they start apologizing the awkwardness begins.

There are, however, occasions when one is not so fortunate as to make friends with children so easily, but these occasions, I am glad to say, are very few and far between in my experience.

Sometimes, however, in exceptional cases, it is advisable to keep in the background and let the mother or nurse amuse the child, while you only press the button; but, as a general rule, if the child is really difficult, the easiest way is to clear the studio of mother, aunties, and nurses; for, it is a strange coincidence, the more difficult the child the greater the number of relatives that are brought to look on, and unless this sort of thing is nipped in the bud (for, remember every artist must be sole master of his own studio), the remarks that take place are enough to make any child feel unnatural.

I shall always remember a little incident which occurred during my recent visit to the German Court. I was trying to imitate the marching of a German soldier, in order to attract the attention of the young Prince, who, I had been told, was particularly interested in the members of the army. My imperson-

ation, however, seemed as if it would defeat its own end, for the ladies of the Court would insist on trying to direct the attention of the Royal infant to the funny figure which I undoubtedly cut, and which seemed to afford them intense amusement. Their good intentions, however, only had the effect of distracting the little Prince, and I finally appealed to the Princess to allow the ladies to retire. Her Imperial Highness, with the charm which has gained her the love of the whole of the German people, readily acceded to my request, after which everything went smoothly.

The artist who makes the photographing of children his speciality has no limit to his resources, for children lend themselves in endless ways to the making of pictures. A child's powers of unconscious imitation are so great that it is often possible, simply by actions and expressions of one's own, and without verbal instructions, to stimulate it to a pose which is full of grace, but which in the case of an adult, not trained to assume such attitudes, would appear unnatural.

To illustrate this I will show you a few slides of a deaf and dumb child recently photographed. The lady who brought him to my studio informed me that by means of signs she could make him do anything that was required. After considering a few moments, I decided that I should have more influence over the child if I were left alone with him, and I think I can honestly say that the half-hour then spent was one of the most interesting I have ever passed in the studio.

I am now going to show you a few pictures of children taken to represent paintings by old masters. The Royal Institution of Great Britain honoured me a few years back with an invitation to give an exhibition of protraits of children taken to represent famous pictures. Some of the portraits have almost an historic interest, as in not a few cases the children were direct descendants of the subjects of the original paintings.

We now come to the question of grouping, which is such a very important and interesting branch of photography. I entirely disagree with the idea which is so prevalent that it is a matter of chance whether a group containing children is successful or not. In my opinion, there is no part of photography that is less a matter of chance, for here, if anywhere, is an opportunity of building up a picture.

In the first place, when taking a child with an adult, care must be exercised to give prominence to the child, and to keep the mother or other grown-up person in the background, treating the adult almost as an accessory; otherwise the child will be overpowered. For this reason I always recommend ladies to wear very simple dresses when being photographed with children.

When photographing a group consisting of more than two persons, I first make up my mind as to the kind of group I want, and then start to systematically build up the picture, first placing the mother and then arranging the children one by one, starting with the one who seems to have the most patience. I always have near me a few flowers, some soft drapery and some toys and books, as these are often needed at the last moment to connect the various figures into a harmonious whole.

The fact that the grouping must be done so speedily renders it all the more necessary to have some clear idea of the result to be attained in one's mind, for nothing is so likely to lead to a failure as for a man to be uncertain as to what he is trying to achieve. The old saying comes very true here, "He who hesitates is lost." Much can be learned as to the combination of groups by a study of the

works of our great masters, and with this object in view I have paid many a visit both to the picture galleries of our own country and to those of the Continent.

At the present day, however, it is not necessary to travel far in order to cultivate an acquaintance with these works of genius, for reproductions of most pictures accessible to the public can now be purchased for a few pence. It is not enough merely to look at these pictures, they must be studied carefully and a motive sought for each detail, the reason why a piece of drapery is put here and an arm extended there, and especially the respective positions of the various figures in the painting. If the pictures are really examined in this manner and the underlying principles upon which they are based thoroughly grasped, they will always remain in the memory, and often, when one is perplexed as to the method of arranging a group, a sudden inspiration—the outcome of intimacy with some masterpiece—will flash across the mind and the difficulty will be solved.

Before showing my last series of pictures I should like to say a few words regarding the camera and general surroundings of the studio. The artist who wishes to be successful as a child photographer must be thoroughly used to his camera, and for that reason I think the simpler the camera and shutter the better, for a camera which is used for photographing children is naturally likely to have rather rough handling, owing to the speed at which one is so often worked.

I do, however, advocate having a large number of dark slides. I have as many as thirty repeating slides fitted to my camera.

The remark is sometimes made that having so many slides ready at hand is likely to make one extravagant with the number of plates exposed, but this I consider a fault on the right side.

I think the mistake so often made is that of being afraid of using a few plates. If one seriously thinks of the value of a good negative, what does it matter whether half a dozen or a dozen plates are exposed? I do not think it is possible for anyone who successfully makes a serious study of the photographing of children to limit the numbers of plates he exposes. I expect some of you think why not use quicker plates so as to avoid movement? But my only reply to this is that unless your exposure takes a second or a second and a half it is very difficult to obtain a really natural expression. The instantaneous portrait of a child is to me almost as much of a caricature as is an instantaneous portrait of a horse galloping. I think the same argument ought to hold good with a child's expression. When looking at a child we do not see the expression of a fiftieth part of a second, but remember the child by the gradual expression which possibly takes a second to come over the face.

The movements of the muscles of the face are almost infinitesimal, but they give you the pleasing effect of the expression.

My next argument in favor of not too quick a plate is that with children it is impossible to regulate your exposing in a way as to be sure of obtaining a correctly exposed negative, so the quality of a slower plate gives one a better opportunity of obtaining a good negative.

The last subject on which I should like to say a few words is one which has for some time received my very serious attention—the question of backgrounds and accessories.

I think the day is not very far distant when the stock background and studio accessory will be no longer in evidence. The public is being slowly but surely educated to a simpler and more natural kind of picture than we have been in the

habit of giving it. It is only necessary to carry one's thoughts back a few years to the photographs that most of us were producing, and which then gave full satisfaction, to realize what an advance has been made in the matter of simplictiy, and I believe we are on the threshold of a still greater improvement in this respect. Look round the walls at what is being shown. You will, however, hear more on this matter to-morrow evening in the lecture to be given by my friend Mr. E. O. Hoppé, who is so eminently fitted to cope with such a very important subject.

What makes me feel so sure that the stereotyped studio portrait is rapidly becoming a thing of the past is the fact that many of my most successful recent pictures have been taken in private houses. The freedom with which you can work when not hampered with studio properties is very noticeable.

Although many of us are fully alive to this advance in public taste, I still think that more might be done in the way of making our studios home-like.

Following Mr. Speaight's lecture, which was freely punctuated by questions from the audience, a short discussion took place.

A member asked if Mr. Speaight himself developed his negatives. Mr. Speaight said he never developed any. He had trained an assistant to develop for the class of print he wanted, and he made a point of not taking the work out of that assistant's hands when the exposures were of specially important subjects. He believed in letting his assistant have the plums when the occasion offered.

Mr. E. O. Hoppe said they were grateful to Mr. Speaight for his delightful lecture. He had shown them that the photographer of children had to forget the wisdom of his years. He thought Mr. Speaight was a most delightful child.

The President said he was cordially in agreement with Mr. Speaight in arranging the studio to look as much as possible like an ordinary room. He had a studio built to his designs with oak floor and oak panelling with doors and corners, and door and window views into his garden, and he was able to make very good use of these natural backgrounds. Still, the ordinary ground of the Gainsborough type was very useful when properly used. He scarcely ever developed a negative himself.

Mr. F. W. Speaight, in commenting upon his brother's paper, said that his own department reached only to the studio door. He laid stress upon the equal importance of the neatness and comfort of the arrangements made for the reception of their little sitters, and particularized the provision that he made for their entertainment and refreshment.

Mr. H. W. Shawcross (Guildford) said that photographers would perhaps differ from Mr. Speaight in some matters of practice. For one thing, there were sitters for whom an exposure of a quarter of a second was absolutely necessary. One point which the portrait photographer learned to appreciate was the evil of the biting sharpness given by the anastigmat lens.

Mr. Henry J. Comley (Stroud) pointed out that the photographer should not forget that the youngest children had mental capacity; they understood sensible talk, and they were offended by being deceived or disappointed in anything the photographer might do. The wise course was to offer them nothing artificial, but to interest them in real things. He thought the photographer might show his interest in children who came to the studio, as, for example, by sending them a card on their birthdays.

WHEN THE SITTER MOVES.

When my painter friends look at photographs they are usually rather inclined to pick out some faults in them, and what seems to offend more than anything else is the hardness of outline and the clean sharp edges everywhere, writes Mr. W. Tanner in the "Amateur Photographer." A painter does not get edges and outlines so sharp and clean cut, and in portraiture this is particularly noticeable, especially in work of a rather large size—Whole-plate or over.

Many photographers have recognized this failing, and numerous are the ways in which they have attempted to correct the over-mechanical accuracy of the lens, both on the negative and in printing.

So much, indeed, is the need for softness of definition recognized that many lens makers have been induced to make lenses specially adapted for securing such effects.

Now there is a way of getting soft edges and indefinite outlines without the aid of any special lens or any dodging in printing; a way which—when it is successful—is, in my opinion, the best and by far the simplest, and that is to let the sitter move a little.

A slight amount of movement will often give just the sort of effect that is wanted. Of course, the objection here is that the result is more or less a matter of luck, the operator has not much control over it, but he can get what he wants more often than not by watching very carefully for his opportunity and seizing on it at the right moment.

It will be better for him not to explain his methods to the sitter and ask him (or her) to move; that would probably lead to failure owing to the movement being overdone. By adopting some such method as the following, it is often possible to secure a soft and pleasing picture and at the same time a natural and characteristic expression.

If the light is good and the lens is of sufficient rapidity to give a properly exposed negative in about a second or so, the best way to operate is to talk to the sitter and make the exposure unseen by him during a pause in the conversation, before the features have had time to stiffen into a conventional and more or less unnatural photographic expression.

There is always the risk of too much movement when working in this way, but the results, when successful, are generally so satisfactory that it is worth while to risk spoiling a plate or two. Should the light, however, not be good enough for such methods, or should the available apparatus not be equal to the task, making a long exposure necessary, it is still by no means impossible to secure good results. It is most important not to insist too much on the necessity for keeping still. A slight change of expression during the exposure, or even slight movement of the head, seldom spoils a picture, but often, on the contrary, improves it.

The only place where such movement is likely to show too much is in the eyes. The high lights in the eyes may become spread out into a line instead of a spot; this is easily remedied by a very little spotting on the print.

The print should, of course, be made on rough paper.

BLISTERS IN CARBON PROCESS.

THE carbon process holds a position midway between what may be termed *straight* printing processes and those admitting control of values, such as gum bichromate and the oil-pigment process. With any process it is, of course, quite possible to control values by means of hand work on the back of the negative or by local shading of the negative during printing, but with gum and oil the values may be controlled during development while the picture, as a positive, is under the worker's hand. This kind of control is not possible in P. O. P. or platinotype, and only slightly so in bromide by means of subsequent local reduction. It is in this respect that carbon may be considered an intermediate process, for while the film of pigmented gelatine is nothing like so amenable to fractional reduction of depth, as is the case with the film of pigmented gum, it is yet fairly easy to lighten tones which may be too heavy by the cautious use of a pledget of wetted cotton or a camel's-hair mop. This advantage, together with the fact that a great variety of colors of tissue may be employed, and at the same time a number of different surfaces of transfer paper used as supports, makes the carbon process a very desirable one for the pictorial worker, yet there are difficulties in the way of successful working which require to be overcome.

Selection of Transfer Papers.

A good deal of difficulty may be avoided by a careful selection of transfer paper. If the surface is what is desired, choose a thinner paper in preference to a thicker one, the thinner paper being easier to saturate with water prior to squeegeeing down the exposed tissue. A fairly soft paper, too, is preferable to a very hard one, less vigorous squeegeeing being necessary to secure perfect contract over the minute inequalities of paper surface. The character of the gelatinous sizing should also be noted, and it is well to soak a sample of the transfer paper in hot water—say, at a temperature of 130 degrees Fahr.—and notice carefully how the gelatine behaves. After some little time the transfer paper may be taken out of the water and surface dried between blotting paper, and the gelatine rubbed with the ball of the finger. If it remains firmly on the paper it will porbably work satisfactorily, but if it readily rubs up almost in a moist, powdery way the transfer paper may be regarded with suspicion. The gelatine is poor, or has been allowed to remain heated for too long a time when the sizing has been done. Better a little additional sheen on the surface of the print than no print at all on account of blisters.

Air in the Transfer Paper.

Reference has been made to the necessity for saturation of the paper before squeegeeing down the tissue. With thin, smooth papers, fifteen to thirty minutes' soaking in cold water is an ample allowance, but the air in a thick paper cannot be dispelled in so short a time, and with some of the thicker drawing papers a soaking of two or three hours is necessary. This expelling of the air is expedited by laying the sheet of paper on the squeegeeing slab, allowing cold water from the tap to run on to it, and rubbing it over with the flat hand with some slight pressure. This not only dispels any minute surface air bells, but the pressure

forces air out of the spongy paper. This may be done two or three times during soaking and immediately before putting down the exposed tissue. The soaking may be shorter if warm water, say 80 degrees Fahr., is used, but the transferring must naturally be done in cold water.

Condition of the Tissue.

Blisters are of two kinds, large and small. Those due to air on the surface or to air in the substance of the paper plus a poor character of sizing are usually small—at all events, not bigger than a threepenny piece. But large blisters sometimes occur, so large and so numerous that almost half a print will come away from the support. These may usually be traced to the tissue rather than the transfer paper. Overprinting, printing in the sun or too near an arc lamp so that the tissue becomes partially insoluble from the action of heat, stale tissue, tissue sensitised at home and dried in any impure atmosphere, any of which produce, at all events, surface insolubility, and prevent satisfactory adhesion of tissue and transfer paper.

The same thing will sometimes occur where there are large areas of heavy shadow, especially if the negative is too strong and very full printing becomes necessary to secure detail in the high lights. In the last instance the remedy is obvious—softer negatives must be produced, and the existing negative either reduced with persulphate or the shadows softened by the aid of mineral paper and stumping sauce. In other cases avoid heating the tissue during printing and take care to use only tissue which before printing is in a perfect condition of solubility. The point may be readily tested by slipping a bit of tissue into water of 80 degrees to 90 degrees Fahr., when the gelatine should melt within half a minute quite freely.

Development.

The usual instructions are to develop in water at a temperature of 110 degrees Fahr. With rough papers much greater safety is ensured by commencing with the water very much cooled—say, 70 to 80 degrees. If the tissue is in good condition, the negative not too strong, and the proof not overprinted, the back should readily peel away in a short time, and the temperature may be raised if and as necessary, but, of course, very gradually. Not only are blistering risks minimized by this method, but if printing is on the light side there is a better chance of saving the print, and the worker always feels that he has something up his sleeve in the way of increased temperature should that be necessary. The readier solubility of the gelatine, too, enables local lightening to be readily carried on, and a good deal may be done in the way of concentration, and the introduction of accents without that risk of dragging away the film from the single transfer paper which exists more or less where printing has been carried so far that development at a much higher temperature is necessary.

Occasionally a transfer paper is met with which shows a tendency to blistering as soon as the print is subjected to a change of temperature, and with such a paper it is not possible to stop "bleeding" by slipping the print into cold water. As soon as development is seen to be complete, the print must be placed at once in the alum, and if this is quickly done there is not much risk of any "bleeding" being hardened and causing smeary markings.

A positive supplementary lens reduces the focal length, a negative lens increases it.

KEEPING A BUSINESS VIGOROUS.

DISMISS the idea forever from your mind that because business is running smoothly and satisfactorily it surely will continue to do so from its own momentum, aided with a little effort now and then. Forget it!

There was once force that built up the business, the same force must be applied to it every day of its existence and that force is:

Intelligent effort. Conditions constantly change. Keep in touch with new conditions, New forces enter the field. Watch them. These forces are different from the old ones and unexpected moves may be made to your detriment.

Open, watchful eyes and a clear, cool and active brain must be in the possession of him who would succeed today. Whatever technical knowledge in relation to his business he is supplied with, so much the better. And there is no single knowledge more important to a business today than advertising. Advertising is the great salesman, he voices his arguments through printers ink and he should always be of the living present, sound in argument, happy in expression and dressed so as to win and please the eye.

Some may say that illustrations and types are matters that need not bother the merchant much, for they are fixed commodities and can be had anywhere at any time.

There is a taint of unsoundness in this logic, but let it pass. One ever present, ever live feature of advertising beyond the power of dismissal by any advertiser is: What to say?

Every advertisement must be thought out and written.

The business man who advertises must regularly answer the pertinent question of: What to say?

The goods and prices that are clamouring for advertising recognition force the issue: What to say?

The dull business of the present preys upon the merchant's mind and stirs up the eternal advertising question: What to say?

The sale about to begin asks with a great interrogation point the conundrum: What to say?

The sale already under way and which must be fed with the food of good advertising propounds the problem: What to say?

The new goods, dainty, delicate, desirable, stylish, serviceable, sensible, the harbingers of the coming season's fashions, fads and fancies whisper with gentle but irresistible insistence the ticklish question: What to say?

The old goods that are eye-sores because not in the public's possession long before, ask, in a gruff, husky voice, as though they themselves were tired of lingering on the merchant's shelves: What to say?

The march of business improvement keeps quick time to the tune to which these words are answered: What to say?

The standstill of business under inert or incompetent direction seems to hush itself because there is no answer to hush itself because there is no answer to: What to say?

The retrograde movement of trade gives the abject shuffle of the bankrupt, because of the inapt and unbusiness-like answers to: What to say?

What to say? is the great question that confronts every business man who advertises. If he answers it right it is probably because he has properly replied to the other great question: What to do? or, in other words, he did what he should in his storekeeping, the right right expression of which appears in his advertising.—"*The Reason Why.*"

COPYING AND ENLARGING OLD PAPER PHOTOGRAPHS.

A FEW weeks back we had an article on the copying of old glass positives and the best way of dealing with them when they come into the hands of photographers who are not familiar with that particular process. We here propose to deal with the copying and producing of enlargements from old paper pictures With the glass picture we have only a perfectly even surface to deal with, but with paper we have a fibrous one which often adds considerably to the trouble when the best possible result is the end in view. Very many of the old albumen pictures that come into the hands of photographers for reproduction are in a more or less deteriorated state. This is more generally the case than with collodion positives, inasmuch as the paper itself has become of a decidedly yellow tint.

The old albumen pictures are generally printed on papers in which the fiber is often very conspicuous. For this reason some photographers do not care for this particular sort of work, especially when an enlargement has to be on a considerable scale. As an illustration of this point we may quote a case that came under our notice during the past year. An enlarged portrait of a lady from a full-length picture was wanted from an original *carte de visite* size. It was evidently taken some forty or fifty years ago, for the lady was attired, according to the fashion of her day, in a crinoline skirt. But as the costume was so conspicuously antiquated only the head and bust was required in a 15 by 12 picture. The portrait was taken to two different photographers in a certain country town, but neither of them would undertake the job, each saying that if done the picture would not be satisfactory, so that they would rather decline the order. As the family was anxious for the portrait, it was taken to another photographer in an adjacent town, who at once said that he could produce a satisfactory result, but the price would be somewhat higher than his usual charges for such work. No demur being made to this, the work was placed in his hands for execution, and, we were told, it proved a tolerably good thing in the end, as not only was a duplicate picture ordered, but a good number of cabinet size copies of the finished enlargement were supplied.

In copying one of these old portraits the first step, it goes without saying, is to get the best possible negative—one in which the granularity of the paper shows only to a minimum extent. Various methods of copying paper pictures have from time to time been published with the view to reducing the granularity to a minimum, such as copying with a direct front light, mounting the picture in optical contact with a glass plate, etc.; but they all seem to have been based upon a misconception, namely, that the granularity seen in the copy is due to unevenness in the paper bearing the image. That, however, is not so; if it were, it should be got over by rolling or burnishing the picture so as to crush its surface perfectly smooth and flat. In practice, however, it is found that however even the surface is smoothed in this way, there is little or no improvement in the resulting reproduction. The excessive woolliness in the copy is due to reflection of light from the fibers of the paper.

Most persons know that a copy from a matt surface print shows far less granularity than one on a glossy albumen paper. What has to be done is to avoid the reflections from the fiber of the paper reaching the lens, as is

done in the case of copying other reflective surfaces. The best light for copying an old albumen print is a strong sideway one. Then the reflections from the glossy fibers will be well away from the lens, for it is well known that the angle of reflection is always equal to the angle of incidence. If one takes an old albumen print into an ordinary room and looks at it with one's back to the window, so that it is lighted direct from the front, one will see the grain very conspicuously, and the image will appear feeble and flat. But if one stands at the side of the window, so that the picture is lighted by a strong sidelight, the granularity almost disappears, while the contrast in the picture seems much increased. Thus a direct sidelight is the best for copying this kind of picture, and it is the one that is used by experienced men when doing this sort of work.

In making the negative, anything like over-exposure must be strictly avoided, as that would add materially to the granularity. For this reason it is always best to err on the side of under- rather than over-exposure.

We shall now assume that an enlargement of good size, say 15 by 12 or 18 by 15, of a head and bust is required from a full-length *carte* portrait. In such a picture the face is only about a quarter of an inch, or little more, in length. From the original a copy is made on a somewhat larger scale, say three or four diameters. This may be done on a quarter plate, and will give us a face of about an inch or so, a fair size for retouching. In making this negative it is a good plan to reverse the lens, if it be a portrait one, so that the back combination points to the picture. The negative having been secured and retouched, it is then ready for enlarging. The object in making a somewhat enlarged copy in the first instance is to give scope for retouching the negative, which could not be satisfactorily done were it of the size of the small original. If the finished picture is to be a carbon, or a platinotype, an enlarged negative is necessary. In this case we have still more scope for hand work, inasmuch as the intermediate transparency, as well as the enlarged negative, can each be worked upon so that comparatively little will be required on the print in the final finishing.

Before the finished picture is submitted to the customer it is a good plan to copy it—say cabinet size—and when the enlargement has been approved of, a proof of the reproduction from it may be shown. In this way an extended order may usually be obtained. In making this copy the picture should be illumined by a sidelight, as was done when making the copy from the small original. For this work, as for the copying of the original albumen print, it is usually found that a plate of the "ordinary" (non-orthochromatic) variety gives the best results.—*British Journal of Photography.*

TRADE NOTES.

THE NOVO TANK represents the latest application of the tank idea in development. It is different from any other tank in that the plates are developed while in a horizontal position, and not vertical. The tank does not have to be turned upside down as development proceeds, nor does it need to be agitated. Two novel features of the tank are the ruby window in the cover, enabling the process of developing to be observed, and an improved hinged rack. This rack opens at the end like a book, and plates are inserted or removed instantly without the slightest chance of the film side of the negative being damaged. The tank, made of strong

brass, heavily nickelplated, comes in various sizes and prices. It is manufactured and sold by the Multi-speed Shutter Co., of 161 West 24th Street, New York, who will be glad to send descriptive circulars and particulars to anyone interested.

THE SENECA CAMERA MFG. CO., of Rochester, N. Y., have just issued their new 1910 catalogue of cameras and accessories. From cover to cover—not forgetting the very handsome outer cover in colors, the catalogue contains an unusually attractive display of cameras ranging from the 2¼ x 4¼ Filmett to the 17 x 20 studio outfit. Every camera need is met by a line of cameras that are well known for their quality. The Seneca guarantee stands behind all Seneca goods, so that you are assured perfect satisfaction. Whether you are in the market for a camera or not, you had better have a copy of this catalogue. It will more than interest you.

AUTOTYPE CARBON TISSUES.—The permanency of carbon, the power to produce all that the negative shows, the new increased range of tints, the various means at hand to use carbon tissue on any camera, is slowly but gradually bringing the use of carbon in all branches of photography. For landscape, transparency, lantern slides, porcelain and ground-glass pictures, photogravure, and, of late, ceramic photography—and, above all, for portrait and miniature portraits. For the new oil process the transfer papers offered by the Autotype Carbon Co. have given the best results. GEO. MURPHY, INC., 57 East Ninth Street, New York, American agents.

THE MULTI-SPEED SHUTTER, well known as the fastest between-the-lens shutter, has been modified particularly for professional studio use. It has very many unusual qualities that make it a desirable studio shutter, and professional photographers would do well to investigate its many remarkable qualities. Full detailed descriptive booklet will be sent on request by the Multi-speed Shutter Co., 161 W. 24th Street, New York.

ROSS LENSES.—The Homocentric Series in their different speeds, now offer to photographers all the range that can be desired: *f.* 5.6, *f.* 6.3, *f.* 6.8, and *f.* 8. The process photographer—for line, halftone, and three-color work—cannot reach a better lens than the Ross Homocentric Process Lens, *f.* 8. With Iris diaphragm, and with slit for odd sizes, and shapes of stops as desired. The studio photographer, who has the Ross Studio Lens, has one with definition, gradation, and speed. The Ross Studio Lens most in use for cabinet portraits is the No. 3, 12-inch equivalent focus, 3½-inch diameter, working at a little more than *f.* 3. Write to the American agents, GEO. MURPHY, INC., 57 East Ninth Street, New York, for the latest Ross catalogue.

SIMPLEX INTENSIFIER, manufactured by the Simplex Intensification Co., of Kansas City, Mo., is all that its name implies. While very simple in operation, the results are certain and gratifying. Try it on some of your weak negatives and you will be surprised at the results obtained. It produces any degree of intensification, and portrait photographers will find it specially useful for local intensification by the brush method. A small bottle will convince you of its worth.

THE C. P. GOERZ AMERICAN OPTICAL CO. announces that Mr. A. Stoeckicht has resigned as treasurer and general manager of the company, and that Mr. Fred. Schmid, who has been connected with the firm for the past ten years, has been elected to succeed him.

THE WOLLENSAK PORTRAIT LENSES: Vitax, *f*/3.8; series A, *f*/5, and Versar, *f*/6, are rapidly finding their way into the best studios. Their first-class portrait qualities combined with moderate prices are bound to make them favorites. *The Photographic Quartett*, issued by the Wollensak Optical Co., Rochester, N. Y., will give you much detailed and interesting information concerning these lenses. It is mailed upon request.

FROM GEO. MURPHY, INC., 57 East Ninth Street, New York, we have just received a new catalogue of Ross Homocentric Lenses, for which they are the sole U. S. agents. Since the Homocentric appeared, some few years ago, it has found many enthusiastic users, and only those who use it know its many good qualitiies. It is highly corrected for zonal aberration, color, and astigmatism, and is free from distortion, flare, or ghost. Many of the leading studios of New York, London, and Paris are fitted with the No. 3 Cabinet Lens, which is obtainable for $135. If you have not a copy of the January (1910) catalogue, one can be had for the asking.

THE FELDMAN STUDIO, El Paso, Texas, held an interesting exhibition of some hundreds or so loan pictures from the studios of our best workers, and got out a clever catalogue of the same. It is good advertising, not only for the Feldman Studio, but for photography in general, and will help toward creating a more wholesome respect for photographic portraiture.

WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
MRS. EDWARD L. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

EDWARD L. WILSON, 122 EAST TWENTY-FIFTH STREET, NEW YORK
Entered at New York Post-office as Second-class Matter

Yearly subscription in advance, United States and Mexico, $3.00; Canada, $3.25; Foreign Countries, $3.50; Single copies, 25 cents. Subscriptions begin with current issue unless otherwise ordered. Original manuscripts on photographic subjects are solicited, and, if accepted, will be paid for on publication.

EDITOR'S TABLE.

"FATHER TIME will commence his seventy-ninth annual spring plowing on this old hillside on Tuesday, April 12, 1910. May we hope for a small crop of wrinkles, errors, and omissions, and for a generous harvest of health, good deeds, and love for all?" So runs an announcement received from that grand old veteran, George G. Rockwood. Notwithstanding his almost threescore years and twice ten, every business day finds our old friend, brisk and cheerful, making as good work as he ever did. His clever portrait of W. M. Chase, exhibited at the P. P. S. of New York meeting, was ample proof that the hand of a master had not lost its cunning.

THE issue of *The British Journal of Photography* for March 18 is the third of the Special "Colonial" Numbers in which this old-established journal addresses itself specially to photographers and photographic dealers abroad. The enlarged text pages contain contributions on studio matters, including the first of a series of articles for the young professional portraitist on securing different effects of lighting. Mr. Edgar Clifton writes on the care of lenses in the Tropics, Mr. Welborne Piper on the adjustments of the enlarging lantern, while a large proportion of the letterpress deals with recent introductions by photographic manufacturers. The advertising pages of the issue reach an enormous total, and indicate in the most emphatic way the importance which photographic firms attach to the Colonial user and buyer. Practically every variety of photographic requisite, for both professional and amateur use, is here described, and the issue may reasonably claim to be the largest and most representative collection of announcements of those catering for the photographer. We congratulate the publishers and editor, George E. Brown, on the appearance of such an usually interesting issue.

Practical Suggestions Regarding the Selection and Use of a Photographic Equipment is the descriptive, if lengthy title of a book just written and published by Mr. A. K. Hanks, of East Orange, N. J. It is a very helpful book for the man who is undecided on what to buy in photographic apparatus. The different uses of various cameras, lenses, shutters, etc., are discussed, and many photographic processes and terms are explained for the benefit of the novice, in whose interest the book is primarily published. Price, one dollar, postpaid. A. K. Hanks, Publisher.

OUR learned Boston contemporary, *The Photo Era*, by frequent announcement, seeks to give the idea that it alone, of all magazines, exercises discretion in the matter of its advertising pages. As a matter of fact, Uncle Sam takes very good care of the advertising department of all magazines using the U. S. mails, so such frequent announcements are hardly necessary. We have observed lately an unfair tendency on the part of our contemporary to attack manufacturers who are not represented in its advertising pages. A month or two ago a certain high-speed shutter was criticised because it was not so entirely simple that a child could operate it, and that some of its readers had not obtained results they were led to expect. In another issue we learn that there are in Germany fourteen large optical works, four of them who are large advertisers are put into the first class, three receive a less honorable mention—smaller advertisers—and the remaining seven — non-advertisers— "make low priced camera lenses of fair quality." Such methods are not in keeping with the otherwise high moral tone of the magazine in question.

DO YOU KNOW THAT WE MAKE A SHUTTER PARTICULARLY FOR PROFESSIONAL USE?

¶The *Multi-Speed Shutter* has been modified for this service, so as to make it very simple and rapid, besides retaining its other many advantages which we would be glad to explain to you.

SOMETHING ELSE NEW FOR YOU

¶A tank in which plates are developed horizontally, a far superior method to upright development, notwithstanding imaginary objections. If you have any doubts about this we will be glad to suggest a very simple way in which you can try it out.

¶The most convenient and practical plate rack ever devised. ¶Development can be watched through a glass screen and plates removed separately at will.

MULTI-SPEED SHUTTER COMPANY

161 WEST 24th STREET NEW YORK

The whole story of print perfection told in a word is:

ARISTO

AMERICAN ARISTOTYPE DIVISION,
EASTMAN KODAK COMPANY,
JAMESTOWN, N. Y.

All Dealers

Vol. XLVII ✣ ✣ ✣ ✣ No. 642

JUNE, 1910

WILSON'S PHOTOGRAPHIC MAGAZINE

DEVOTED TO PHOTOGRAPHY MONTHLY: ILLUSTRATED

$3.00 A YEAR
SINGLE COPY, 25 CENTS

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Engraved Supplements from Oil Paintings by John Collier and H. G. Riviere, London.

EDWARD L. WILSON
122 E. 25TH ST : NEW YORK

ENTERED AT N Y POST OFFICE AS SECOND CLASS MATTER

Answering Three Vital Questions

THE most prominent photographer in Chicago after trying one full gross of 14 x 17

Professional Cyko

admitted it was the best paper he had ever used, but laid special emphasis on the *uniformity* and *stability* of a paper as indicating its real value to the high class studio.

> "Now that I am satisfied with your emulsion and your raw stock I will ask you three questions:
>
> Is your emulsion always the same?
>
> Do you use always the same raw paper?
>
> Is your plant large enough to cope with the growing demand?"

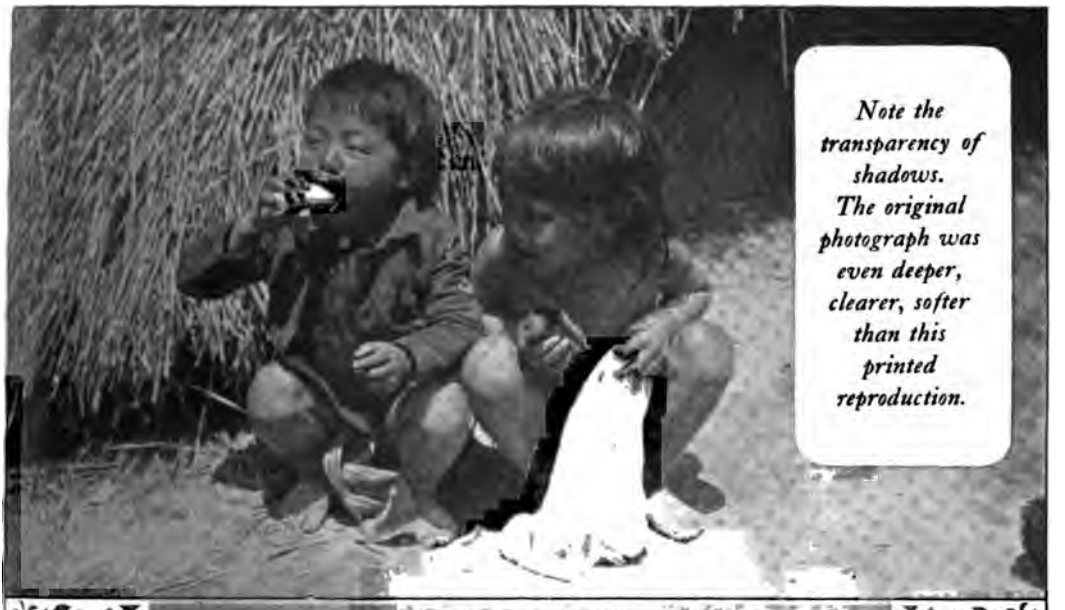
To these three questions a representative of Cyko can answer "Yes" with the knowledge that his answer will be echoed by thousands of photographers who have used Cyko and by every independent dealer who has sold it for the last *ten years.*

Geo. N. Topliff Vice Pres.
D. Johnson, Secretary

Ansco Company

Binghamton, N.Y.

By Meredith Janvier, Baltimore, Md.



Where there is an element of doubt you are more certain to get a good photograph if your camera is loaded with

The "ANSCO" Film

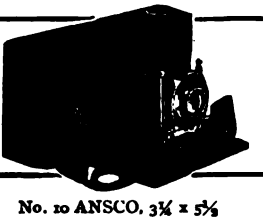
The exceptional latitude and speed of this film insure fine negatives under conditions that would mean failure with the ordinary kind. They compensate largely for incorrect judgment of light and time, reducing uncertainty of results to a minimum. The Ansco Film increases the value of your camera to you as an amateur. It enables you to make better photographs, more artistic pictures.

Ansco negatives reproduce every soft gradation of light and shade. They retain clear detail in high lights and transparency in shadows.

They have chromatic balance that gives a correctness of color tones unknown to other film.

Made in sizes to fit every film camera. Non-curling; non-halation. Off-setting of numbers never occurs with this film. Our perfectly non-actinic black paper and properly prepared emulsion prevent it.

CYKO Paper is preferred alike by the wise professional and the knowing amateur. It gives deeper, softer, clearer prints from any negative, plate or film.



Look for the Ansco Sign. There you will find a progressive, independent dealer selling the complete line of cameras and photographic supplies made by the Ansco Company.

No. 10 ANSCO, 3¼ x 5½

Beautiful Camera Catalog, also Two-Volume Photographic Library—Free. At dealers' or write to

ANSCO COMPANY, Binghamton, N. Y.

Bausch & Lomb-Zeiss
PORTRAIT UNAR

¶ You cannot close the other fellow out without closing yourself in. The photographer who refuses to be convinced that there is a better lens than the one he is using may be closing the door of progress on his own business.

¶ There are many photographers whose artistic capacity is far ahead of the equipment they use. In a vocation where as much depends upon the mechanical as the mental equipment —where results depend upon the lens—it stands to reason that the greatest care should be given to its selection.

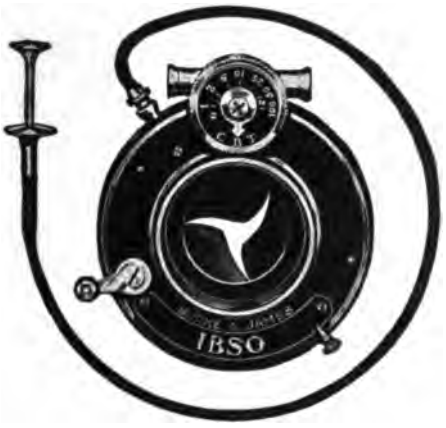
¶ The PORTRAIT UNAR is a great investment. It combines three lenses in one. It will make a portrait bust, three-quarter or full-length figure and group equally well, and with or without diffusion.

¶ Get one on trial from your dealer.

Our Name on a Photographic Lens, Microscope, Field Glass, Laboratory Apparatus, Engineering or any other Scientific Instrument is our Guarantee.

Bausch & Lomb Optical Co.

NEW YORK WASHINGTON CHICAGO SAN FRANCISCO
LONDON ROCHESTER, N.Y. FRANKFORT



The Ibso Auto-Sector Shutter

A sector shutter at the price of an ordinary shutter. The three-leaf (sector) system admits one-third more light than is possible with any other style—making the Ibso the fastest shutter ever sold for the price. Interchangeable with any hand camera shutter.

A light, compact and durable sector shutter that is a marvel of simplicity in mechanism. Accurate and reliable. Designed especially for the more discriminating users of 4x5 and 5x7 cameras. A medium price sector shutter that has distinctive features possessed by no others. A safety lock prevents accidental exposures. Operated with lever or Metallic Release—furnished with the shutter—eliminating all "bulb trouble." When buying a Camera insist on an Ibso Shutter. Ask your dealer or send for circular.

Price, with Metallic (antinous) Release..... **$8.00**

Sole United States Agents for Ibso Shutters **BURKE & JAMES** **Jackson Boulevard and Desplaines St.**

CHICAGO

DALLMEYER

THOSE qualities in Portraiture which mark the work of the true artist are not secured with an ordinary lens. They are in most cases secured with . . . . . .

Dallmeyer Portrait Lenses

They have justly earned their reputation among photographers the world over. The fact that they are used in most high-class studios should convince you that you are taking no chances in selecting a Dallmeyer.

Dallmeyer Stigmatic Lens Series II is the best all'round Anastigmat Lens ever made

Catalog cheerfully mailed, or ask your dealer

BURKE & JAMES
CHICAGO & NEW YORK

SOLE UNITED STATES AGENTS FOR DALLMEYER LENSES

Day's White Paste

is scientifically prepared especially for fine Photography and Art work.

Never Spots because it is absolutely neutral —cannot injure the finest paper or fabric.

Never Wrinkles because it is milled to the smoothness of a cream, the fineness of the particles insuring its

Perfect Adhesive Quality

Remains in perfect condition until wholly used up, which makes it the cheapest you can buy, in addition to your getting more in a package.

DAY'S ½-pint, 1-pint, and 1-quart jars hold full 10, 20, and 40 ounces, not 8, 15, and 32 respectively. You get most for your money in the 6-lb. and 12-lb. pails; 6-lb. pail, $1.00. FREE SAMPLE ON REQUEST.

DIAMOND PASTE COMPANY

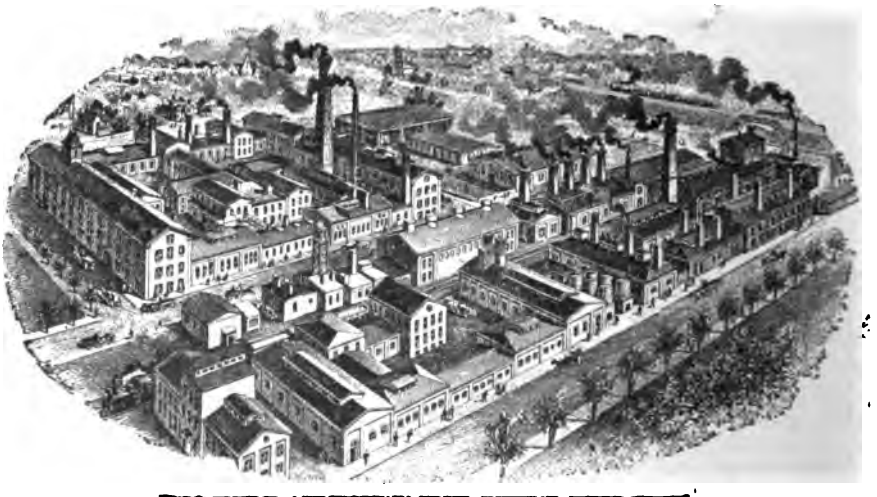
No. 70 Hamilton Street Albany, N. Y

THE SUBSCRIPTION PRICE to this Magazine is $3.00 per year. Beware of canvassers offering you a year's subscription for less than this amount. Many photographers have been victimized by dishonest canvassers.

The only safe way is to send your subscription or renewal direct to this office or through a reliable dealer.

CHARLES COOPER & CO.

Manufacturing Chemists (ESTABLISHED 1857) **194 Worth Street, New York**



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SIMPLE—FOR IN OR OUTDOORS

One Movement—Exposure Accurate Made Like a Watch

FOR UNIFORM SYSTEM

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57 E. Ninth St., N. Y.

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Temporary Supports

All the Materials for the Carbon Process

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No. 142—Turner's Sepia
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AGENTS
57 East Ninth Street, N. Y.

The Photo-Miniature Series

The most successful series of photographic text-books ever published. - - Plain and practical information

FOR PROFESSIONAL PHOTOGRAPHERS

PRICE 25 CENTS PER COPY

SOLD BY DEALERS EVERYWHERE

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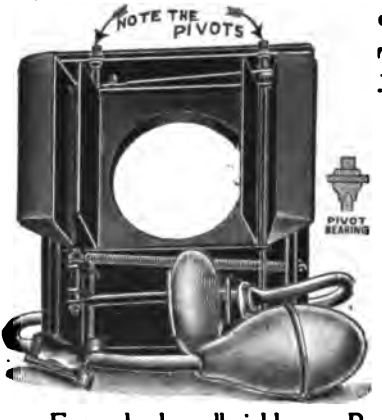

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FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVII JUNE, 1910 No. 642

THE MILWAUKEE CONVENTION.

THE Thirtieth Annual Convention of the Photographers' Association to be held in Milwaukee, July 12 to 16, will have the advantage of holding its meetings in one of the finest auditoriums in this country, just completed some few months ago. It will be found to be the most complete and convenient building ever used for the annual meeting. The picture exhibit will have unlimited and splendidly lighted accommodation. The manufacturers' space will allow for special displays, and ample hall space for the meetings and the school of photography is provided.

In order not to detract from the national meeting, four of the nearby associations, the Northwestern, Illinois, Indiana, and Wisconsin, have abandoned their annual meetings for 1910, which ensures an unusually large attendance.

This year the school of photography, which is steadily growing in favor and importance, will be conducted on a larger scale than ever. Ryland Phillips and W. Sherwell Ellis, of Philadelphia, with Dudley Hoyt, of New York, will hold sessions each afternoon during the Convention.

An unusually attractive feature of this Convention will be the demonstrations of photography by artificial light, to be given by M. J. Steffens, of Chicago, who will with his own studio staff and apparatus make and finish work from the posing of the subjects to the delivery of the prints. In this work he will be assisted by Frank Scott Clark, of Detroit; J. C. Strauss, of St. Louis, and other of our leading artists. This is undoubtedly the best offering which has ever been made by any photographic convention. It alone will be worth the price of admission and all the cost of transportation necessary to get there.

A lecture demonstrating a method of applying backgrounds to any negative has been arranged for at considerable expense, the work of the artist being thrown on a screen by special apparatus.

George W. Stevens, director of the Toledo Museum of Art, who made one of the most interesting talks at the recent New York Convention, will give an art lecture. Mr. Stevens is a keen student and in thorough sympathy with the photographer. We are confident that this will be an interesting and helpful lecture.

Ryland W. Phillips is down for a lecture on "Constructive Criticism," from his selection of the best pictures of the exhibition and others he considers less meritorious. Mr. Phillips aims to show by his manipulation how a bad picture is to be converted into the real thing. This demonstration will doubtless be looked forward to with breathless interest by would-be picture makers.

A. F. Sheldon, president and founder of the Sheldon School of Scientific Salesmanship, will give a talk on the psychology of selling pictures. Those who had the pleasure of hearing Mr. Sheldon's lecture before the New York Convention, and which is reprinted in this issue, will tell you they never heard anything quite so good before.

J. C. Abel, editor of Abel's *Photographic Weekly*, is to lecture on "Modern Publicity; or, the Use of Printers' Ink to Increase Business." We do not know of anyone better qualified to speak on this important subject.

The Hundred Dollar Prize for the best invention, apparatus, or process for photographic use is sure to bring out a number of interesting and useful ideas.

The Congress of Photography, which was launched at last year's meeting, will hold its second session, when many important matters are to be brought up for discussion.

A new feature of this year's meeting will be the Ladies' Auxiliary. They will have an exhibition and several meetings of their own.

The picture exhibit this year promises to be unusually large and representative. President Proctor has sent us the names of photographers who have promised to send three pictures each, and the list includes practically every prominent photographer in the Union. This picture exhibit will be worth going to see.

Railroad Rates.—After six months of pleading for a special rate by the Board, the best the railroads would offer was fare and one-third if one thousand certificates could be procured. The Board could not guarantee this, as only five hundred were secured last year at Rochester, and it was the largest attended meeting in the history of the association. Members are advised to take advantage of a summer tourists rate to several points near Milwaukee. One of these resorts is Waukesha. There are several others, and by courtesy of your railroad agent you can acquaint yourself fully with the places where the rate is in effect from June 1 to October.

PHOTOGRAPHERS' ASSOCIATION OF NEW ENGLAND.

If this were designed primarily for the benefit of our Association and our men, my first words would be to advise perusal of "A Privilege and a Duty" on the first page of the May Wilson's. Owing to conditions so significantly set forth in the second column of the article, I am unable to dilate upon the subject that would please me most—the photographers of New England and what they will do.

Quoting from Wilson's, of 1908: "There must be something radically wrong with an association that cannot get its most influential members to accept office," and my own communication last December: " . . . We endeavor to make our efforts such

as to result in something permanent, to bring about a closer union in the organization, and to place the Association upon a broader basis"—will give a fair conception of the object of our season's activities.

At the expense of much labor Secretary Hastings has acquired a list of addresses containing almost 1500 studio proprietors. These together with the employees in our field certainly make an abundance of "prospects." In addition to the general circulars issued, the State vice-presidents are carrying on local campaigns, striving to establish local fraternal sentiments. Thus far we are yet to discover any who are antagonistic, scarce any who express indifference. If there really be "a fly in the ointment" it is "the other fellow." If the suppositional attitude of this "other fellow" is ignored, and our men meet THEIR OWN duties and obligations without fear that they may overdo their share, or may not meet the appreciation their efforts merit, there is no question but that 1910 will see New England prestige *back again.*

Our program will include the well-known names, Ryland W. Phillips, J. Hanmer Croughton, and C. H. Claudy. The illustrated lecture of Mr. Phillips is now generally and appreciatively understood from its previous presentations at conventions, but we understand that valuable additions have been made, and it is bound to meet the enthusiastic approval of our members. Mr. Croughton is preparing a lecture especially designed to assist those most in need of instruction along pictorial lines. Mr. Claudy's advertising considerations will include lessons gleaned from personal experiences of many successful New England photographers.

During one of the day sessions, Mr. Phillips will give a pertinent talk on "Common-sense Photography." Both Mr. Croughton and Mr. Claudy place themselves at the service of members, when not on the platform. Numerous minor details, the social dance, the Nantasket excursion, etc., combine to make a program that has brought numerous words of commendation.

Our general policies have also been approved and been absolved from criticism wherever fully understood. The offering of State prizes was not intended to create rivalry *between* States with reference to their aggregate exhibits; rather was it designed to stimulate each State to make a creditable *relative* showing, a collection of entries proportionate to the State's actual representation in the craft. New plans for arranging the exhibits are expected to add to the effectiveness of the display.

The expressions of interest, good-will, and a well-defined intention to be present, from several prominent men outside our field, has been most gratifying. The art exhibit will be open to the public one afternoon, free tickets being furnished members for their distribution to friends and clientelle, and we hope this may result in having the 1910 collection viewed by an unprecedented number.

Briefly, so far as permitted by our ability and acquired enlightenment, we shall present every inducement for the craft to attend and remove every excuse for its remaining away. Results, success as it is commonly understood—these depend upon the response of individuals; thus far, we only know that every influence appears to be working for us and none against us.—*W. F. Oliver, President Photographers' Association of New England.*

THE NATIONAL ACADEMY OF PHOTOGRAPHY.

BY CHARLES WESLEY HEARN.

THE committee appointed at the Dayton Convention of the Photographers' Association of America to handle the National Academy movement, which was first brought up at the preceding gathering at Niagara Falls, expects to make its report at the coming convention of the Association to be held at Milwaukee in July.

It is quite possible that this report, embracing its investigations and findings, may be found sufficiently far advanced with its recommendations and proposed plans for the establishment of the Academy; that a basis may be found tangible enough for legislation to be finally effected. In which case we would all feel that the movement is well inaugurated, and in due course of time full-fledged academicians will have become an accomplished fact; that these men and women would then, in justice, hold an unquestioned position among photographers, commanding their respect and support.

With the object in view of drawing the attention of our members to this proposed report, so that they can give the matter some previous consideration with careful thought, before they leave for the convention, I have deemed it advisable to contribute for your perusal this paper upon some views on the subject that come up before me.

History of the Movement.

For the information of those who may not be conversant with the facts, I would say that at the Niagara Convention, in 1906, a movement which received the cordial and unanimous support of the entire Convention was inaugurated, looking to the early establishment of a National Academy of Photography, the method of its accomplishment being left in the hands of the President of the Association. At the Dayton Convention, in 1907, in a brief report, the President explained the status of affairs, and asked that a Committee be named to assist him in carrying the project into effect. The report is now to be made at Milwaukee.

The basic principle which underlies and has called forth this movement, with its numerous supporters, is:

The Ultimate Recognition of Photography as a Fine Art in Our Country, through the Establishment of a National Academy of Photography.

In other words, photography not being recognized as an art in official artistic circles in this country, we propose to inaugurate an academy of our own, believing such a body will establish for the public the true standard of art in photography, and that the standard will be acceptable, and render photography worthy to be classed with the other fine arts.

Why is the Movement Necessary?

There are many reasons why the standard of photography should be defined, and there are many more reasons why the "uplift" should be applied to photography itself. I turn to the latter first.

There are many of us who bear to our profession an affection second only to that which we accord to our families, and anything which will uplift the profession in the eyes of the public, so that photography be given unbounded respect and esteem, is a

matter of great concern to us. As we venerate our parents for their early watchful care, support, and zealous interest constantly maintained for our welfare, so do we venerate photography itself, since by the pursuit of that calling we have attained a certain degree of success as artists, with due measure of respect and esteem in the eyes of the public. We do not wish to be an incubus for life upon our parents, but love to be helpful in return, and so likewise we should not wish to be a constant drain upon photography in our upbuilding without some proper recompense. Any steps taken toward uplifting and dignifying her in the eyes of the world, making it appreciative of the future greatness which is photography's destiny, is not only a worthy object for which to strive, but is an obligation for us to assume. That we in so doing aid ourselves at the same time is only an incident that follows naturally; but, I think you will all agree with me, this fact should not be the main reason for our support.

There are times in all our lives when pure commercialism should not be the ruling star of our existence, and it is fitting and proper that the æsthetic side of all questions should receive some consideration. Neither is it necessary or advisable that idealism should run riot. Such a course is worse than foolish, since it injures a cause which it might otherwise benefit. Recognizing the obligation we are under, and as quickly as possible taking steps toward meeting it, we can then continue along the lines upon which we are working toward the advancement of photography and the support of our families, with what, I believe, would be renewed energy and buoyancy, as the result of our efforts for a brief time in this proposed direction.

Among the reasons why I think the standard of photography should be defined, and the respects in which the Academy would be found to be helpful, are the following:

At present photography has no recognized standard by which any conclusions can be drawn as to its status. We believe it to be an art; some claim it is a science; others claim it closely borders upon the mechanical. Many of us have attended conventions where certain speakers outside of our own followers, artists or art critics, in talking to us, have run the gamut of describing our work as being closely affiliated with that of artists of the brush, down through the scale to being hardly above that of the hod-carrier; their expressions being governed by a proper appreciation of courtesy due their audiences in some instances, and being but the ribald utterances of an educated freak in the honorable hod-carrier classification. Some of us New England men have heard an artist and a teacher of art (whose views I here give, as it serves to show the opinion held by a large proportion of that class) devote practically a whole evening of a course of lectures given us, to telling us we "were not artists, never could be artists," and that the camera and lens in photographing what is before it "willy nilly" entirely removed us from even any possible affiliation with artists, etc.

It is superfluous to state here any thoughts to the contrary when we all know the control we exercise over existing conditions; yet we all agree that "it is up to us" to show just what we do claim can be done, and as photography develops with its ever-increasing and continual advancement in desired results, who can tell what the future has in store?

When one considers the varied range of results produced in photographs

as made today, from the high-keyed "map" to the "spook," and each "school" (for purposes of differentiation I will so term them), thinking that this is the correct one, where are we to look for any word of authority to assist us in clearing up ma ters? The hard, earnest work of a few good men is so shaping things that we for ideals in results are largely guided by them, and yet this work is quite dissimilar. These men are working along the lines of the artist of the brush, but have any of my readers commented upon the fact that one of our best portrait workmen of the day is producing work wonderfully similar to the best of English engravings? The natural conclusion to be drawn, then, is that there is gradually being developed in the ranks of our best workmen, in the individuality of their work, those differences in photographic art which compare with what we have become accustomed to call the various schools of painters.

Whatever I have advocated in the past (even as far back as 1903, and three years before the subject of the National Academy was broached at Niagara), that certain worthy members of our fraternity should be given degrees, as an aid to gaining prestige for our calling in the eyes of the public, is, I now confess, a matter of indifference to me. The question arises whether our future academicians would avail themselves of it anyhow. They could or could not as might suit themselves. I believe the basic principles which underlie the movement would be in themselves sufficiently effective in accomplishing the result hoped for, *viz.:* the elevation of the art itself, the definition of our true position among the fine arts, and the creation of some clearly defined standard in photographic results which would be possible of intelligent comprehension.

Even with the aid of our various associations, there has never been in the past any organized effort toward any fixed or definite idea, except for a single convention, when a new set of officers has come in, and the policies, etc., of one year have been changed to others, either to suit new conditions which may have arisen, or from a desire to change, if for no other purpose than to be different. The policies of conventions, therefore, are never to be depended upon.

The creation of an Academy when effected under the wing of such a representative body as the P. A. of A., with the prestige of its thirty years of honorable existence, would be an act worthy of such a career. While thus recognizing the need of continued and persistent organized effort, for a series of years, which this Association is unable to give, we would thus impart to a number of worthy men, carefully chosen from its many children, the fulfilment of a duty—a task which will require the exercise of their best talents. Thus banded together they can best accomplish our wishes and thus make more effective their work. In doing this, we have done all we could, and have recognized our obligations toward high ideals.

Upon these men devolves a sacred task. They will not fail, for they will rise to the occasion as such men always do. Their success will be *our share* in the work.—*Charles Wesley Hearn.*

[This paper will be concluded in our next issue.—Ed. W. P. M.]

Damp-stains, from envelopes in which gum or paste has come in contact with film; or from storage in damp room Potassium bichromate (saturated solution), 10 c.c.; water, 100 c.c.; pure hydrochloric acid, 3 c.c. Treat until whole surface (including stains) is bleached. Redevelop in any vigorous developer until blackened through to the glass.

PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

An Appeal by the Treasurer.

On May 1, the members of the Photographers' Association of America received a statement for 1910 dues. With it was a request that same be paid in advance of the convention. Many complied with this request, others did not. To members who have not responded to this call from your treasurer, and to photographers who are not members of the Photographers' Association of America, these lines are particularly addressed.

The treasurer asks as a personal favor that dues be paid NOW. It will assist him materially with his work convention week, and it will be a convenience to those who attend.

The *Association Annual* will soon be ready for distribution. The 1910 number will be a handsome edition, cleverly edited, compiled, and printed, containing instructive and interesting articles by some of the most successful photographers on how to secure and hold business—a topic of vital interest to every professional worker. The numerous illustrations are excellent reproductions of some of the best pictures of the year. It is a number of the *Annual* you will preserve. Please remember that this year the *Annual* will be sent only to those who pay dues for 1910. If you have not remitted, do so at once. Your official receipt, membership button, and a copy of the *Annual* will be sent to you by return mail.

A few words concerning the Milwaukee convention. The executive board have arranged for the enjoyment of those who attend one of the most interesting and instructive programs yet offered.

There will be a three days session of the School of Photography, showing on Friday finished prints from negatives made earlier in the week. In addition to the corps of regular instructors, Commodore Steffins, of Chicago, has promised to make pictures for us from the taking of the order to the delivery of the finished prints, in a model studio, equipped entirely with artificial light. He will be assisted by some of the best workers in the country.

Our picture exhibit will eclipse anything of the kind ever attempted both in quality and quantity, and the best feature of this department is the ideal exhibition room at our disposal. All prints on a line and a perfect light for every print.

A new feature for this convention will be a half hour musical program preceding each business session. In fact we are promised plenty of music throughout the week.

An unusual number of manufacturers and dealers have contracted for exhibition space and this means photographers will have the opportunity of selecting and buying the latest and best productions of the manufacturer.

The $100.00 prize for the most practical invention of the year will bring out a large number of entries and these will be demonstrated throughout the week.

The lecturers secured for this convention are men who have good practical topics and who can present them in a way that will interest and instruct you. Do not miss these talks.

The second session of the Congress of Photography, which convenes in conjunction with the convention, will have representatives present from practically all the live minor associations

of the country. This organization is the one that will accomplish much for the fraternity. Give it your influence.

The first meeting of the women photographers will be in session at the same place and time. In fact this is an affiliated orginization. Lady photographers should join this band of serious workers and secure the benefits accruing from such association.

The matter of entertainment was left largely with the photographers and dealers of Milwaukee and they have promised so much entertainment that the board could scarcely find a place on the program for all they had planned, but we are going to have a full week of instruction, pleasure, and good fellowship.

If you are a member of the Association, pay your dues; if not, fill out the attached membership blank and mail with the fee to Treasurer Dozer, and he will send you a membership button and the *Annual*. Look over the program, send three prints for the exhibition, then come to Milwaukee for the week of July 11. Not a bad stunt to close up the studio and bring the help with you.—*L. A. Dozer, Treasurer.*

Application for Membership

in the

PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

L. A. Dozer,
Treasurer P. A. of A.,
Bucyrus, Ohio.

Dear Sir:

I hereby apply for membership in the Photographers' Association of America.

Enclosed find $3 for initiation fee and $2 for one year's dues.*

Name

Street,

City,

State,

(If check is sent send 10 cents for collection.)

* If you are a member of any State Association affiliated with the P. A. of A. under the new constitution, only the $2.00 yearly dues are called for, provided you show receipt from your State Treasurer.

REPORT OF THE IOWA CONVENTION—DES MOINES, MAY 10, 11, 12, and 13.

SOME little disappointment was manifest on the first day of the meeting, owing to the failure of the Mayor of Des Moines to welcome the members as scheduled, and because it appeared, at the outset, as if some of the entertainments promised by the Des Moines Commercial Club would not be given. This was all cleared up satisfactorily, however, and I believe no man went away from Des Moines feeling that he had had anything but first class treatment all round. The local committee, with Mr. Cottrell at the head, did everything it could to make the entertainments successful and to live up to the promises made.

The Convention proper opened on Tuesday afternoon, May 10, the president giving his address and the treasurer and secretary their reports.

In the evening a reception and

dance helped to bring the members in closer personal touch.

Wednesday was devoted largely to the manufacturers and dealers, demonstrations being given by Harry Fell and assistants, on Artura, Eastman Engraving, Black Platinum and Aristo Platino; by Ted Muller and Owings on Professional Cyko, and by Bird on Kruxo. George Holloway gave a skylight demonstration in C. F. Townsend's studio. In the evening the Commercial Club of Des Moines tendered the photographers a banquet in the Savery Hotel, at which over two hundred sat down. Mr. Voiland, the president of the association, was too modest to take over the duties of toastmaster himself, so he called on Mr. Pratt, of the Des Moines Photo Supply Co., to officiate. Mr. Dinsmore, a local photographer, was first called upon and he spoke for the Commercial Club, explaining the arrangements made for entertaining the members. Mr. Webster, of Des Moines, welcomed the visiting photographers. Mr. Corning, the well-known Hammer Dry Plate demonstrator and professional humorist, urged photographers to "keep on smiling." "Smile at your patrons and they'll smile at you." Mr. Townsend, of Lincoln, Nebraska, suggested that Iowa join with Nebraska next year and have a whopping big Convention. Mr. George Holloway, of Terre Haute, Ind., congratulated the association on the splendid showing it made and tried to figure out what it was that brought so many photographers there. Mr. Ben Larrimer, 2d vice-president of the National Association, briefly described the proposition of the Congress of Photography and urged the members to attend the National. Mr. Johnson, of Sweet, Wallach & Co., of Chicago, gave some of his reminiscences when he first went into business. Mr. Abel, Editor of Abel's *Photographic Weekly*, was introduced as the one who had travelled furthest to attend the convention. He spoke on the differences between the new idea in associations and the old, urging the Iowa Association not to forsake the old idea, as it had yet to be proved that the new idea of conventions without manufacturers and prizes was a success. In concluding, Mr. Abel gave the following creed which he dedicated to photographers:

The Photographers' Creed.

"We believe that this is a just world and that even photographers will get all they deserve.

"We believe that photography is a science and the practice of it an art worthy of our best thought and effort.

"Give us time to study hard and the leisure for quiet thought, and open mind toward the wisdom of seasoned experience, and a ready ear that we may hear the heart-beats of our patrons.

"Protect us from the cant of the unfailing system, from the temptation to knock the work or character of another, and from the necessity of advocating damnably bad photographs at low prices in preference to good work at fair prices.

"Give us charity, good cheer, and a minute or so for the beginner and the plodder while practising at all times the noble art of minding our own business.

"Give us strength to be boosters always—kickers never—and that we may always play the game like gentlemen.

"And in the end, may God protect us from the belief that we are superior in knowledge or performance to our brothers, and find us a place in the sacred city of our ideals."

Mr. Reuver, of Pella, was called upon as the man who had attended every one of the twenty conventions, and then Mr. J. R. Hall, who has attended all but one. Mr. Hall suggested that it was the presence of the ladies that brought the many men, and urged the men to bring more ladies next year as that would bring still more men. Harry Fell, of the Eastman Kodak Company, praised the city of Des Moines and its photographers for their ready help and assistance in making a success of the convention. Ted Muller spoke for the Ansco Company, felicitating the Association on the brisk way they did things. Mr. Fred Hammer, of the Hammer Dry Plate Company, read a number of jokes from a book which he claimed to have found in a dark-room, and which was presumed to contain the secrets of a photographic employe. Mr. Romano, of the Eastman Kodak Company, provoked lots of laughter with his delicious accent and humorous remarks. Others who spoke were: Mr. Frank Medlar, of Spencer; Mr. Bird, of the Kilborn Photo Paper Company; Mr. Eisleben, of the St. Louis-Hyatt Photo Supply Company, of St. Louis; Mr. Townsend, of Iowa City, the father of the Townsend boys; Mr. Cottrell, Mr. Bramson, Mr. Ferguson, Mr. Townsend, of Des Moines, who retailed a number of stories, and the officers, Messrs. Voiland, Reid, and Free. Altogether it was a most entertaining affair.

On Thursday the business meeting opened early in the morning with a talk by Mr. C. F. Townsend, on the Congress of Photography. Mr. Larrimer urged the Association to join the National under its new constitution, and on motion being made it was unanimously voted to affiliate with the National and send delegates to the Congress. It was also moved and adopted that one of the delegates to the Congress shall always be the retiring president and that this rule be embodied in the by-laws of the Association.

It was decided to hold the 1911 convention at Sioux City.

The election of officers resulted as follows: President, Guy N. Reid, of Ottumwa; First Vice-president, H. E. Link, of Centreville; Second Vice-president, Tom Henning, of Storm Lake; Secretary, F. A. Free, of Davenport; Treasurer, P. A. Newburg, of Iowa City. Mr. Hall proposed a ladies' auxiliary, and most of the ladies present expressed their desire to join such a movement. The demonstrations by Mr. W. S. Lively had to be omitted, as Mr. Lively was not present, owing to ill health. In the afternoon demonstrations were made by the manufacturers and also in Mr. Townsend's studio by Mr. Romano and Mr. Holloway.

On Friday morning Mr. Holloway gave a talk on the use of developing paper for enlargements and showed a couple of enlargements which could not be told from direct prints. Mr. Holloway's method is to make an 8 x 10 enlargement with each order and to mount these solid, with tinted borders matching the tone of the print. The cost he places at 30 cents for black and white prints, and he sells them for about four or five dollars, or with a handsome frame, which costs him a dollar, for six and a half dollars. He advocated such prints in place of the regular bromide enlargements made by enlargement concerns, and he preferred to place the price low and sell a number of them than to charge a high price and only get rid of a few.

Mr. Voiland, the president, then gave out the prizes to the successful exhibitors, as follows:

Grand Portrait Prize—Silver Cup—R. C. Nelson, Hastings, Nebr. Prize Winners' Class—Silver Cup—Frank Medlar, Spencer, Ia. *Class A.* 1st Prize—Gold Medal—C. H. Gilbert, Independence, Ia.; 2d Prize—Silver Medal—J. H. Birkemann, Perry, Ia. *Class B.* 1st Prize—R. W. Brown, Albia, Ia.; 2d Prize—C. A. Engledow, Vinton, Ia. *Class C.* 1st Prize—T. T. Henning, Storm Lake, Ia.; 2d Prize—E. R. Ballord, West Union, Ia. *Class D.* 1st Prize—G. M. Crawford, Oakland, Ia.; 2d Prize—H. Hyink, Alton, Ia. *Miniature Class.* 1st Prize—C. I. Townsend, Des Moines, Ia.; 2d Prize—H. E. Link, Centreville, Ia. *View Class.* E. R. Ballord, West Union, Ia. *Children's Class.* 1st Prize—H. Kadghin, Cedar Rapids, Ia.; 2d Prize—C. F. Townsend, Des Moines, Ia.

Mr. Abel described the principal features of the forthcoming National Convention, particulars of which will be found on another page in this issue. He then urged photographers to pay greater heed to the little things in a studio, which, through familiarity and daily contact, were overlooked. He urged photographers to get more out into the open and to mingle with their fellow citizens, taking active part in local interests and thus creating publicity for themselves, for it was publicity that was the germ of all successful trading.

One of the most successful Conventions ever held in Iowa was then adjourned.—*Abel's Weekly.*

DAGUERREOTYPES AND THEIR RENOVATION.

THE Daguerreotype process to many photographers of the present day is very like a sealed book, a fact which is not altogether surprising, seeing that it has ceased to be worked, commercially, for something like fifty or more years. Although the Daguerreotype image is the most stable of all silver pictures, it is, at the same time, the most delicate of all to deal with. This will be realized when we say that the whole of the image can be wiped off the plate with the finger, leaving only the bare silver plate. Even removing dust from the surface with a camel-hair brush will sometimes cause minute scratches which cannot be got rid of afterward. We merely mention this fact to illustrate how extremely delicate is the actual image.

Not a few photographers at the present time do not know what a Daguerreotype really is. Some seem to assume that if a photograph is mounted in a morocco case it must necessarily be a Daguerreotype. A gentleman who is a specialist in restoring these pictures told us not long ago that fully one-third of those sent to him for restoration are not Daguerreotypes at all, but ordinary collodion glass positives, and the most surprising thing to him, he said, was that the greater part of them were sent by professional photographers.

Only this week a correspondent asked us to help him out of a difficulty he had got into with one of these old pictures, which he evidently had assumed was a Daguerreotype. In his letter he said that the picture which he had to copy was somewhat tarnished, and that he had treated it in the "usual way" with cyanide of potassium, and afterward backed it up as before, and was surprised to find that the image was then too feeble to copy. Now the picture our correspondent had been "restoring" was clearly a collodion positive, and not a Daguerreotype at all, as shown by the "backing

up as before," for, of course, the latter, being on a silver plate, requires no backing up. His treatment in the abstract would have been all right had it been a Daguerreotype, but he had clearly dissolved some of the silver that formed the image of the collodion picture, and thus practically ruined it.

The only deterioration that a Daguerreotype undergoes is a tarnishing of the silver; remove the tarnish and the picture will be as good as it ever was—barring, of course, any mechanical injury. We have seen pictures in which attempts have been made to remove the tarnish by rubbing, but with the tarnish the image itself has been removed. When that has been the case, it need hardly be said the picture is irretrievably ruined.

We shall here describe the method of restoration employed by experts, yet at the same time we would enjoin the novice on no account to attempt the work on a valued picture until he has experimented and gained some experience with a few that are of no value, for it is a somewhat ticklish thing, owing to the extreme delicacy of the image. Even when some little experience in the work has been acquired, it is a good plan to copy the picture beforehand so that something remains in the event of an accident.

In the first place, after the plate is removed from its case, all the paper that originally secured it to the mat and glass should be carefully scraped off the back, taking care that none of the particles get on the front, as they may be difficult to get off without injury to the picture. That done, any dust that may be on the surface is blown off. What cannot be got off by blowing had best be left on to be washed off in after operations, as in some states of the image it is somewhat risky to use a brush. Next, the plate is flowed over several times with alcohol—industrial alcohol may be used, but it is not advisable to employ ordinary wood alcohol. The object of the alcohol is to cause the cyanide of potassium solution, which is the cleaning medium, at once to take kindly to the metal. The spirit is then rinsed off under the tap and the plate flowed over backward and forward with a solution of cyanide of potassium until the tarnish disappears, or the solution may be put into a dish and the plate immersed in it. No very definite strength of the solution can be given, as the cyanide of the shops often differs considerably, as may be understood when we mention that its price (wholesale) varies from twenty-five cents a pound to twenty-five cents an ounce for the pure. What is known in the trade as "silver cyanide, 40 per cent." is suitable for our present purpose, and of that ten grains to the ounce of water will be a suitable strength to use in average cases. If the tarnish proves very refractory, a stronger solution may be employed; but it must be used with judgment, or the fine details of the image may suffer.

After all the discoloration has been got off, the plate (front and back) is well washed under the tap. Finally it is rinsed with distilled water and dried. The drying is a rather important operation, as without great care streaks or lines will be produced. Having ready a lighted spirit lamp and a pair of pliers, the plate is gripped with the latter by the left-hand bottom corner and drained for a minute or so. While draining the position of the plate must not be changed. The top corner of it is then brought gradually over the flame of the lamp, and as it shows signs of drying the plate is slowly raised so that the drying proceeds evenly downward. If a check

occurs in the drying a mark or line will be formed which sometimes cannot be got rid of.

When the work is finished the picture should be sealed up airtight, with strips of paper secured to the edge of the protecting glass, which is usually ground to give a hold to the paper. As a cement, gum or dextrine should be avoided, because if it becomes abnormally dry it is liable to separate from the glass. The best cement for the purpose is starch or flour paste. When the binding paper is dry the picture is restored to its case so as to prevent its deterioration in the future. An expert once told us among the scores of Daguerreotypes that had come into his hands to deal with there was not a single one of them that was sealed up the way in which the maker had probably prepared it. All had been taken out of their cases, probably for copying, and not in any way sealed up again, so that air and the impurities in it had access to the picture. Such treatment by photographers of pictures, valuable to their owners, entrusted to them for copying is, to say the least of it, highly discreditable. In closing these practical hints on the restoration of Daguerreotypes, we would counsel photographers into whose hands such originals are placed to entrust them to an expert who is familiar, practically, with the working of this very old, yet beautiful, process; or, at any rate, not to experiment on plates of any value.—*British Journal of Photography.*

HOW TO FIGURE EXTRA PROFITS.

We have met with a great many photographers who have expressed themselves as afraid to make an attempt to get better prices, on the ground that the people they serve are a class that want the cheapest thing they can get, and if they are boosted up in the price they will not take anything. To a certain degree this argument holds good, and we are not disposed to advise any attempt to work for advanced prices where the temper of the patrons served is such that it would hurt business to put prices over their heads. But we are convinced that this view of the case is only partially a true one, and that there is no clientage anywhere, in either city or small town, where every one is so poor that they are disposed to buy nothing but the very cheapest. A certain proportion of the public wants something a little better. Let us consider the public that is served by a gallery in a small town. Conceding that the town itself is small, and that the country round about is not particularly fertile, we know that the individuals in that locality are of the same general make up as the individuals in any other community, in this respect, that some are thrifty and hard working while others are lazy and lacking in business ability. Now, it is a universal law of nature that the hard working, thrifty members of any community are always in better financial shape than the lazy members. Also it is true that while people who are saving money to get ahead are often slow to part with it, the fact that they have it and are independent breeds a feeling of appreciation for nicer things of all sorts. By experience they have discovered that it always pays to buy the best, for, while it may mean a larger outlay, the satisfaction that the purchase gives and the longer time it lasts more than make up for

the difference in price. It is not wise business to lose one's trade by boosting prices higher than the trade will warrant, but it is equally bad business to assume that every member of a community thinks and acts alike. The ability to appreciate this fact and to act upon it continuously and carefully is more likely to bring success in business than almost any other quality. Let us make a conservative estimate of the proportions of the average patronage that are available for some hammering with the view of getting more business and more money out of them. Assuming that the town and country around has a population of 3000 people who are of an age to earn a living. Of these 3000, it would be an extremely conservative estimate to state 2700 are not capable of appreciating or buying a photograph higher than $2.50 per dozen, while 300 have money enough and taste enough to be able to pay for and to desire something better than the cheap work demanded by the others. Any community that does not contain a larger proportion than the above is poor indeed, and can hardly be considered able to support a photographer.

But if there are 300 who are able to get good pictures, then there is material to work on, and every such person should be marked and not permitted to take that grade of work that is demanded by the poorer element. Timidity should be overcome, for it is a fear of losing a customer that compels many to give up and not make an effort to get orders for better prices. For the sake of showing just what the benefits are, let us analyze the items that go to make up the cost and profit on pictures and try to see just what line of effort will yield the most profit, and, consequently, what line of effort it is the best policy to pursue.

Taking a dozen of standard cabinets as the unit, the actual cost of material that enters into it is about fifty cents. The work of retouching and the preliminary work has a value of about thirty cents. The balance can be considered as applicable to the expenses of the gallery, which are composed of rent, light, heat, etc. The real profit on the work comes in the form of the pay that one receives for the work done on the pictures, for this is the reward or the wages of the workman. Now, if we assume that a picture that sells at $2.50 a dozen requires an actual cash outlay of fifty cents before any wages can be considered, then from the balance of $2.00 must come the wages of the worker, from which he is to pay all expenses and reimburse himself for the amount of work he does. When an endeavor is made to increase the prices, if the value of the stock used is increased in order to make the picture more attractive, the margin of profit must be increased proportionately or the advance is without benefit.

To illustrate, if $3.00 is charged and the value of the stock that goes into the pictures amounts to $1.00, then the reward for the workman remains at $2.00, just where it was before, and absolutely nothing is gained. But if a picture can be put up that will command a price of $3.00 that has received its added value on account of the extra amount of time and work that has been put upon it, then the workman has practically raised his own wages, for he is getting more employment and also getting more for it. If it takes ten minutes' talking at the counter to induce the customer to pay fifty cents more and ten minutes' more work on each negative to make it worth the amount charged for it, then the photographer is getting at the rate of $1.50 an hour for increase

in his wages. That is a pretty good increase for these times. If the order can be increased a full dollar and the value of the stock used is increased but twenty-five cents, then there is seventy-five cents to pay—for what? Fifteen minutes spent in talking to the customer and urging the purchase of a better grade of work and fifteen minutes more spent on the pictures to make them worth every cent that is charged for them, will also yield an increase of wages of $1.50 per hour. In other words, every bit of work that is put into inducing customers to take higher priced work and every bit of extra work put on pictures sold at a higher price is clean profit. But this work must be put on faithfully if the job is to be held.

Working on this basis, if three hundred patrons can be induced to so increase their orders that they can add at the rate of even one dollar an hour for all the time expended on their pictures, then it should be perfectly evident those three hundred available customers should be selected to pay this increase of wages, and they should be worked for just as faithfully as if they had already employed the photographer. The most successful business man in your community is the man who gets the highest average income, and if he is a hustler, and is always known to be making an effort to induce other people to do business that will help him to get his income, he is pointed to with pride and his very success brings him honor. The man who cannot induce others to employ him at a high price is certainly not considered a successful business man.

To sell more goods and to make no additional profit is a waste of effort. To get the kind of business that brings the biggest profit is the very keynote of success. For a photographer to adopt a style of picture, the increased value of which is all in the amount of work and skill that is put on it, is to sell that part of his product which keeps him employed at the very highest rate of compensation. The amount of time put into working on all customers who are financially able to pay higher prices must be considered in the same manner as the time put on the photographs and it is much more profitable to be paid for the time one puts on this work than for the material.

Some of the methods that may be employed that will cost no more in money but more in time is the making of larger heads and the use of 4 x 6 paper, or even 5 x 7 paper. This means more retouching and more working up of negatives but little or no more actual outlay of cash. The use of the custom of vignetting with such handwork as will make the picture stand out boldly and attractively is profitable use of time at advanced wages. The use of sepias will prove effective, for the additional chemicals cost little and require only a little more time and skill. The late magazines and books on photography are all full of styles that can be adopted where the skill and time given by the photographer will receive decided reward, and in making an effort for a demand for higher priced work it should always be kept in mind that it is the increased work that is put on the pictures rather than the increase in cost of materials used that brings the greatest profit.—*Trade Notes.*

Gold toning, for yellow pyro-stained negatives: Gold chloride, 2½ gr.; ammonium sulphocyanide, 35 gr.; water, 10 oz.

Drying Method. Staining of yellow film in weak aniline blue solution produces a green which retards printing less.

WOES OF THE MOVING-PICTURE MAN.

THE fields and woods about historic Fort Lee, just across the Hudson from upper New York, are the scenes nowadays of a continuous performance of extremely animated open-air theatricals. On almost any fine day one may enjoy historic pageants, sham battles, tragedies, comedies, and the bill is changed daily. A few motorists are attracted to this region and they, with the native population, form the only audience.

The manager of all these one-night, or, rather, one-day stands is the moving picture man. Here one may see the premier performance of scores of dramas which later will be repeated in thousands of darkened halls all over the country. The delights of a first night at the theatre are nothing, however, to those of a real, living, moving picture show.

To watch the staging and rehearsals of one of these open-air dramas is to go behind the scenes with a vengence. A wide assortment of properties is kept on hand in a near-by barn. The stage is shifted from place to place to take advantage of the natural setting. The actors and actresses dress and make up in tents which are pitched near the stage selected for the day's performance.

The native population has become accustomed to bands of Indians yelling and dashing about the roads and by-paths, to troops landing on the river bank, to dancing villagers, and every variety of battle, murder, and sudden death at their very doors. It sometimes happens, however, that a stranger chances upon the shows, to his unbounded astonishment, and complications follow.

The moving-picture impresario has not alone all the troubles of his craft to encounter, but he must guard against interference as well. The performances rarely go off smoothly, despite every precaution.

Within a few days an animated scene from the French Revolution was enacted, for instance, beside the River road. A guillotine had been erected and a howling mob assembled about it. The "execution" was going forward in the most lifelike manner. The long film was speeding smoothly through the camera. The dramatic moment arrived. The condemned man, with the priest beside him, ascended the scaffold. The chorus waved their arms, swaying to and fro.

Just at this most inopportune moment an automobile swept around the curve of the road, and several ladies it carried suddenly found themselves face to face with this exceedingly realistic picture. They broke into wild, piercing screams. The automobile stopped. The excitement was too much for the chorus. It stopped its performance then and there, and turned, even to the condemned man and the priest, to look at the automobile. The motorists saw their mistake in a moment and sped away. But the film was ruined.

Another day the entire company met at the picturesque stone church which crowns the Palisades for an old-fashioned wedding ceremony. Some one connected with the church had agreed to allow the procession to form in the church and leave it, in full costume, to the rattle of the moving-picture machine.

Without any warning, several excited figures rushed into the picture. A wild scene of confusion followed. The groomsmen tried to eject the strangers. An unseeming struggle ensued. All this was recorded with pitiless exactness by the moving-picture machine.—*New York Times.*

Home Portrait

By E. L. Mix, New York

Home Portrait Group

By E L. Mix, New York

Home Portrait

By E. L. Mix, New York

Portrait in Oils

Painted by JOHN COLLIER

Exhibited at the Royal Academy, London, 1910

Portrait in Oils

Painted by H. G. Riviere

Exhibited at the Royal Academy, London, 1910

1. Mme. de A.
By La Gandara

2. Mme. B. and Son
By J. Baugnies

3. Profile
By Carolus-Duran

4. Count Karolyi
By J. E. Blanche

Illustrating Sidney Allan's Article

5. Anniversary
By J. E. Blanche

6. Portrait
By A. Guttero

7. Study
By A. P. Agache

8. Countess B.
By L. Cappiello

Illustrating Sidney Allan's Article

9. Mme. T.
By R. Woog

10. Mlle. G.
By W. A. Ablett

11. Mme. H.
By Chas. Rixens

12. Mlle. M. R.
By P. Mathey

Illustrating Sidney Allan's Article

PORTRAITS AT THE PARIS SALON, 1910.

BY SIDNEY ALLAN.

THE Paris Salon is still the leading picture exhibition in the world. It is international in character, the French government takes an interest in it, and there is sufficient space to hang thousands of pictures. Every painter, no matter of what nationality, has, at one time or another in his life, the ambition to become a contributor to the annual exhibits. If he is awarded a medal or an honorable mention he has made a decided advance in his profession. It gives the artist a certain prestige in the eyes of his colleagues. The Salon is the only exhibition where a painter with one picture may become famous over night. This is particularly the case with portrait painters. To be the exhibitor of an attractive portrait at the Salon means success and fame to any artist who aspires to the specialty of portraying society.

Among the portraits of this year we find several well-known names, like Carolus Duran, La Gandara, Blanche, and Agache.

Fig. 1, by La Gandara, is a charming group composition, quite unusual in its construction. The background is dark, as in Whistler's pictures, and silhouettes the figures without making their outlines sharp or conspicuous. The background cuts into the figures, and it is largely the lighting which gives a decided form and shape to the two figures. Notice the curved line that is made by the two heads, the neck, the hip, and the knee of the women.

The portrait by Bangnies is a similar composition. It is less eccentric, and for that reason not quite as startling. It is a tonal composition, and the boy's white collar and black blouse furnish the leading color notes. The background, with its vertical streak, is excellent. It helps the triangular arrangement of the figures. The woman's body is exceedingly graceful. I do not know whether this pose is possible in photography. I fear it would be extremely difficult to show both knees and keep them in correct proportion. The fine hands make too straight a line; the painter tried to balance them by showing the white socks of the boy, but it did not help much, as it gives a spotty effect to the centre of the picture.

Old Carolus Duran, once the leading portrait painter of France, is represented by an interesting profile view. To show the straight arm of a chair in its entire length, and to put the arm behind it, is quite an experiment. I would recommend this arrangement to photographers. I think it could be done, as the face, the lace effect of the collar, and the two hands—the four bright spots in the picture—are apparently in one plane. The chair and figure are well placed; the angular form of the chair in a way helps the graceful lines of the arms and bodice. The odd shape of the collar and the pattern of the waist lend a picturesque touch to the otherwise rather severe composition. The hands are beautiful. Will we ever see such hands—so expressive and beautiful in shape—in photographic portraiture?

Figs. 4 and 5 are two portraits by J. E. Blanche, who is generally conceded to be the "prince of French por-

trait painters." He is fond of painting interiors as backgrounds. He succeeds in suggesting the atmosphere of a room with any amount of details, without emphasizing any part to such a degree that it would injure the figure. He treats objects as shapes and masses. The figure of the boy in Hungarian costume is graceful in itself, but I fear would look a trifle affected without the patterned couch behind it.

"The Anniversary," Fig. 5, is an excellent two figure composition. Notice how cleverly the bright planes are managed; they form a sort of rhomb, that, so far as its shape is concerned, is in perfect relation to the rectangular shape and dark tonality of the picture. The face of the man shows too much facial expression for a portrait. It conveys contemplation, appreciation, recollection of a long matrimonial career, etc., and is convincing, but I believe the picture would be better without it. The painter, no doubt, realized this, as he did not catalogue it as a portrait, but as an "Anniversary."

In Figs. 6, 8, and 10 we have three noted figures. The portrait by Guttero shows quite an unusual pose. Painters, as they realize more and more the recording power of the camera, are forced to search for peculiar attitudes. The figure could have been placed a little higher, but is exceedingly well managed in line. The slant of the arm and leg and the whole body was quite a bold experiment. The figure occupies almost one-half of the picture, the ordinary triangular division, but which is rarely used in portraiture. The large shape of the figure is balanced by the mirror in the upper right corner. The pose of the head, a profile against a full back view, is discreetly managed. It is in every way a successful picture. Fig. 8, by Capiello, is a study in masses; the balance is not perfect, there is too much white, and the fur-covered couch is too bulky. Also the silhouette of the upper part of the body is a trifle harsh. The best part of the picture is really the treatment of the simple background. It is conceived as one tonality, a tonality, however, which offers enough differentiation of values to look interesting. But it should have been lighter in key, the figure is too bright to look well against a dark background. Of course, I have not seen any of these paintings in the original, and can judge them solely as black and white reproductions. Fig. 10, by Abblett, is an ordinary composition.

The painter had no ambition beyond making a pleasing composition. It is well spaced, and the black boa and bowl with flowers are placed in such a way as to lend a certain picturial quality to an otherwise rather bald and commonplace arrangement. The shadow behind the figure helps to envelop it, and gives a certain depth to the room. The hem of the skirt is well managed. A broken line is always effective.

The "Etude," by Agache, is clever as arrangement of a dark shape against a middle-tint background. The face is the brightest spot in the picture, and is well placed; as you will notice, it is placed a trifle toward the right side. The actual centre is where the opening of the neck ends. The oval of the face is almost in the centre of the upper parallelogram. If it were actually in the centre, the whole composition would have been spoiled. The shape of the bust is rather angular, but modified by a blur on the left and some transparent drapery on the right shoulder. The suggestion of a hand at the lower margin was unnecessary, and yet a middle tint gradation somewhere along the lower margin had to be introduced to balance the brightness of the face.

In Fig. 12 the head is a trifle high, but it lends dignity to the figure. The composition reminds one of the English portrait painters. It is picturesque in treatment, while Fig. 7 is strictly decorative. Photographers should analyze for their own benefit the reasons why one figure makes such an entirely different impression than another. It is largely due to the treatment of lines and masses. If the linework is simple and the shapes conceived in large unbroken planes, a picture is apt to assume a decorative appearance. If the lines and planes are broken, as in Fig. 12, the picture will reveal more picturesque and painter-like qualities.

There is little to say about the two standing figures, Figs. 9 and 11. I consider the background in Fig. 11 abominable. It is a bad example of the old bench and balustrade background, and should not be tolerated at all. The figure in itself is not so bad, but it can teach us little. The sunlight on the hem of the skirt is the only technical trick that is worth studying. Fig. 9, by Woog, is a queer and restless arrangement. The tonality is dull and there is no atmosphere in the room. The lines of the coat and gown seem to have been made with the desire to produce an odd effect. The whole picture looks affected, and shows us what should be avoided rather than copied in photographic portraiture.

PORTRAITURE BY ARTIFICIAL LIGHT.

In our last issue we described Mr. Beach's method of supplementing a

skylight with electric light—and by the way, the cut showing the lamps illuminated was printed wrong way up. This month we are enabled, through the courtesy of Mr. E. L. Mix, to show his method of making

portraits by gas or electric light. As will be seen by the illustration, the apparatus consists of a light iron folding tripod, a short gas bracket carrying two inverted Welsbach lights (the inverted light must be used to do away with any shadow), a wooden top carrying the lights, which is removable, and the whole outfit including twenty feet of tubing, can be packed into a suit case for transportation.

Where electric light is available the same tripod and headpiece is used, the gaslights and tubing being changed for a length of wire with plug and two Tungsten lamps and reflectors. Extra Welsbach mantles are carried to guard against accidents.

Portraits can be made at night with an exposure of from five to ten seconds. Our example was made in a dark hall at 11 P.M. with an exposure of seven seconds.

For exposures in the studio late in the afternoon, or on dark days, such an assistant would enable you to make sittings which would otherwise be impossible or unsatisfactory.

Mr. Mix, whose work is very largely home portraiture, makes no claim to being an inventive genius; the need of more light again proved that "necessity is the mother of Invention;" and the idea is gladly offered to the fraternity.

THE PHOTOGRAPHY OF NEAR OBJECTS.

BY C. WELBORNE PIPER.

WHILE stereoscopy, generally speaking, is of small use for distant objects and is usually applied only to near ones, yet there are degrees of nearness, and special difficulties arise when the subject is very close to the camera. Most of these difficulties have been referred to before at various times when studying the subject of stereoscopy generally, but it will be best to treat them together in one chapter as they are likely to get the beginner into trouble, and the photography of near subjects is one of the most important branches of stereoscopy.

It has already been pointed out that when the object is very near we must use a narrow lens separation, and also mount the prints with a small separation, otherwise the results will show distortion. If we neglect the narrow lens separation and use lenses that are too far apart, then the resulting prints must be mounted at a yet smaller separation and must also be more severely trimmed down, therefore the attempt to utilize a wide lens separation leads to an unsatisfactory result and also wastes material. If we neglect both lens separation and the rules for correct mounting we get only a bad slide with confusion at the margins, and, most probably, very evident distortion of the subject.

An adjustable front, of course, affords the ideal method of arranging the lens separation, but this is not always available. Even when it is available it will often possess too small a range of movement and so be of little use. To serve all purposes the range of adjustment should be from 2 to 3½ inches, and very few of the commercial adjustable fronts give such a small separation as 2 inches. This is, however, a most useful distance for near

objects, and almost indispensable. In the absence of the right kind of front a spare lens panel should be obtained and two extra lens flanges should be fixed in it at a distance of 2 inches from centre to centre. As a rule, it will be necessary to cut away part of the flanges to get them as near together as 2 inches. With the lenses so mounted it will be possible to put the camera quite near the object and still get the image central on each half of the plate, and with lenses of short focal length (that is, 5 inches or less) it will be found easy to produce images on a scale varying from half to nearly full size. With smaller lenses of yet shorter focus it is possible to diminish the separation, and, if sufficient camera extension is available, to produce full size or even enlarged images. Such images should, of course, be viewed in a stereoscope fitted with long focus lenses, otherwise the right viewing distance will not be obtained. It will, however, be found that a pair of camera lenses of about 5 inches focal length and with a separation of 2 inches will serve for most of the subjects that are likely to be met with in general practice.

In working at such close quarters the matter of depth of field, of course, comes in, and it will nearly always be necessary to use a small stop, say *f*/22 or *f*/32; even *f*/44 will often be required. These small apertures of course, involve long exposure, and if flowers are the subjects treated it is necessary to guard against movement. They should be protected from the wind by screens if out of doors, but, if possible, the work should be done indoors. Cut flowers must be kept in water for an hour or so before beginning operations, as when first cut and placed in water they are generally in slow movement for some time, and the movement does not cease until they have sucked up a certain quantity of water. Cut flowers or leaves not in water are usually in perpetual movement until they die.

The background used for small objects should generally be plain, and it is better to have a background than to dispense with one, first because it is impossible to get other objects which may be behind in focus, and second, because if the object is worth photographing at close quarters it is usually desirable to concentrate the attention upon it. Dim fuzzy outlines of other things are distracting, and often serve to confuse the form of the one particular subject. Backgrounds need not be objected to on the score of trouble or expense, for they need be only very small. From 18 inches to two feet square will be quite large enough, and cardboard is excellent as material.

A very useful device for supporting small objects consists of two drawing boards of about half imperial (22 by 17 inches) size, nailed or screwed together at right angles. If a boss for a tripod screw is fitted in the centre of one of them the whole can be fixed on a tripod so that one board forms a table and the other a background. A tripod for a whole-plate camera is desirable for the sake of steadiness, but in its absence the two boards can well be placed on a table. Each board can then be temporarily covered with any suitable material. Brown paper and white blotting paper or cardboard are both useful, while black velvet is very desirable in some cases. As a general rule the same material can be used for both boards, for as each will be differently lighted a difference of tint will in any case appear in the photograph.

It must not be forgotten when making stereoscopic slides that are intended to serve as records that no

record is complete without some indication of actual size. This can often be suggested without the inclusion of an obtrusive and too obvious scale. Thus a vase, which by itself may appear to be of quite vague dimensions, will show its actual scale very fairly well if some object of familiar size, such as a wine-glass or tea-cup, is photographed with it. When photographing some one very important item it is often advisable to group it with some other object just for this purpose of indicating scale. This adds to the value of the record, and as often as not, also adds to the effect of the subject. Another method, which is perhaps better from the purely record point of view, is to cover background and table with some material ruled in squares of known size, say inch squares for moderately big objects, and quarter-inch squares for very small ones. The ruling may be very faint, for so long as it is just perceptible in the photograph all the requirements are fulfilled.

The meaning of the ruling can of course only be interpreted by the initiated, therefore the scale used should be marked on the slide. If both the background and the table top are visible in the result it will be possible to gather some very accurate ideas of the dimensions of the object when the slide is studied in the stereoscope.

The arrangement of the lighting is, of course, of the utmost importance, and its adjustment should be governed by one consideration only, that of showing the detail of the subject to the best possible advantage. Sometimes it is necessary to employ a reflector to light up the darkest side of the object, and a lamp can, of course, be also used for the same purpose. As a rule, however, the detail on the darkest side will show up quite well if the exposure is only long enough, and when working on near objects it is easy to err on the side of under-exposure.

When a reflector or second light is used care should be taken not to overdo the secondary illumination. If there is too much of it, then while the details on the shady side of the object will be shown up, those on the lighter side will become less clear, for the small shadows that should emphasize them will be lightened. If the light is very strong on one side of the object, then, instead of attempting to produce more light on the other side, it is generally better to cut down the strong light with a diffuser of muslin or very thin tracing paper, and to give a much longer exposure.

The subjects available for work of this kind are innumerable, and any worker can specialize in a number of directions with profit to others as well as himself. He may devote himselt to botanical or zoological work; to the study of mineralogical or wood specimens. The grain and texture of wood, minerals, shells, etc., show up excellently in the stereoscope so long as the photographic technique is perfect. China, glass-ware, furniture, and specimens of the crafts of jewellers, carvers, lace and needle workers, etc., all afford abundant opportunities, and not the least fascinating feature of work of this kind is the fact that hitherto so little has been done in any of these directions by stereoscopic workers. It is obvious that a good collection of slides illustrating as fully as possible some one or other of these studies or crafts may in time become very valuable. Further than this, those possessed of the collecting instinct may gratify it in an economical and very satisfactory manner by making a collection of stereoscopic slides instead of one of

the actual articles. It is generally easy to make a photograph of a rare specimen though it is often impossible to obtain the specimen oneself, and it will be found that a collection of really good stereo slides will afford almost as much satisfaction as the actual object.—*Photographic Notes.*

A SOLUTION FOR COMBINED DEVELOPMENT AND FIXATION.

AMONG the various writers who have given directions for the simultaneous development and fixation of negatives, the majority have apparently been content with formulæ which required from half an hour to an hour for the combined operations. Obviously, if such a method is to be of real practical use, the time in which it can be carried out should at least be not more than that required for separate development and fixing, and my experiments have, therefore, been directed toward obtaining a solution which would do its work in a shorter time. The developer chosen for the experiments was the most simple of all—namely, diamidophenol, which is that usually employed in my ordinary work. Another reason which determined this choice of developer was the fact that the various formulæ at present recommended for combined development and fixing have the tendency to give very hard results. Diamidophenol, which lends itself particularly well to soft negatives should, therefore, be very suitable for this special purpose. Expectations in this direction were borne out in practice.

A Formula.

After a great number of trials, it was found possible to use a ratio of hypo to developer suitable for obtaining excellent negatives of average density. The following is a typical formula:

Diamidophenol	15 grains.
Soda sulphite, anhydrous. . .	80 grains.
Hypo solution, 1 to 5, as ordinarily used for fixing	5 drams.
Water	3½ ounces.

At first sight it would seem that a very large quantity of hypo is included compared with the quantity usually suggested for this method of development. It should, however, be noted that the proportion of hypo prescribed is that found sufficient to ensure proper fixation of richly coated plates in about ten or fifteen minutes.

In working by the combined method 100 c.cs. of the bath given above is used for a plate up to 7 x 5 inches in size. For larger plates a larger quantity of solution should be used in order to ensue complete fixation. With a normal exposure the image appears in about thirty seconds, and is completely developed and fixed in about fifteen minutes. Care should be taken to continue the process until all trace of the white unexposed silver bromide has disappeared. It is sometimes said, in regard to combined development and fixing, that the dark-room can be completely dispensed with, the plates on completion of development being removed in full light, or, at any rate, by artificial light. This course is not recommended. The plates should not be exposed to any light but that of the dark-room until finished, otherwise the parts not rendered insensitive to the action of light are further acted upon

and darken to a further extent in the developer, giving rise to fog, or in some cases to dichroic fog.

Some Minor Advantages.

This method of development has the further advantage of dispensing with the necessity of watching the plate throughout development; the only effect of leaving things to themselves is that, owing to the solution of not being kept in motion, a longer time of development is necessary; but the photographer can go away and come back in half an hour, finding his negatives completely finished. The results obtained by working in this unattended way have proved excellent as regards cleanliness and rendering of detail in the heavy shadows. Skies have come out with good rendering of the clouds, and there has been no evidence of markings or patchy results such as are produced when working in the ordinary way with a developer which is not kept moving.

On removal from the bath the plate is washed in the ordinary way. If the bath has not been kept in motion, the negative is wiped over with a tuft of absorbent cotton, in order to remove the whitish deposit which forms on it. The density increases a little on drying.

As a general rule, the more sensitive the emulsion the softer the negative obtained in this way. The formula above given produces an average degree of vigor with ordinary commercial plates. If it is found too energetic, it can be restrained by addition of 1, 2, or 3 drops of bisulphite solution, which, even in small quantities, has a marked restraining effect on the diamidophenol developer. This addition will mean a somewhat longer time of development. It is not advised in cases of under-exposure, as it reduces the activity of the bath.

Modification in the Solution.

For those who find the density given by the above formula insufficient for particular purposes, the proportions of sulphite and of diamidophenol may be increased, while that of the hypo is kept the same. It may be objected that the formula, once established for negatives which have received correct exposure, will not give good results in the case of over- or under-exposure. In the first case, the plate will be fixed before it is sufficiently developed, while in the case of over-exposure, the negative will be too opaque in consequence of the developer having acted more quickly than the fixer. This view of what might conceivably take place is not quite correct. When dealing with under-exposed plates, it is easy to see if the developer is slow in producing the image and giving the necessary density, which latter cannot be obtained at all if the exposure has been much under the correct time. The fixer, in its turn, acts more slowly than when exposure has been normal. This is explained by the fact that a larger proportion of unaltered silver bromide remains to be dissolved by the hypo.

Errors in Exposure.

On the other hand, in the case of over-exposure, where a large proportion of the silver bromide is reduced, the normal density is more rapidly obtained, even exceeded, and consequently there is less for the hypo to do, and it therefore completes its work in a shorter time. When development and fixation are separate operations the time of fixation is roughly proportional to that of development, and the same thing holds good when the two operations are conducted together by means of a single solution.

In the case of exposures which are only slightly incorrect, the results will

still be satisfactory. The total time of the operation will vary. The greater the degree of over-exposure the shorter the time for the combined operation, and *vice versa*. However, when working in this way, it is best to give more, rather than less, than the normal exposure; with considerable under-exposure, or even a slight degree, development is further prolonged, and is liable to cause dichroic fog. Thus, the use of the combined development and fixing method is advised for exposures which are full. The extra-rapid plates of the present day give excellent results by this method.

Although the process is not likely to supplant the present practice, yet it is able to render excellent service. The simplicity of the operations, the small number of dishes and solutions required, are advantages which will be appreciated, especially by the tourist photographer.

For Lantern-slides.

In making lantern and other transparencies on glass, the method is particularly of interest, since it allows of a great number being done in a short time. All the exposures can be made, and then the plates developed together in one large dish. A fairly long exposure should be given. Doubtless, by modifying the constituents of the bath, this method would also allow of warm tones being obtained on bromide and gaslight papers as well as on lantern-plates.—*V. Crémier* in the *Photo-Gazette.*

BUSINESS BUILDING.

ONE of the most interesting and helpful addresses ever made before a meeting of photographers was the address made by Mr. A. F. Sheldon, at the recent annual meeting of the Professional Photographers' Society of New York, and which we reprint from *Section News*, the official organ of the Professional Photographers' Society of New York. Mr. Sheldon goes deep into the roots of business methods, and his deductions are based on a large experience and have been endorsed by the leading business men of the country.—ED. W. P. M.

I have the honor of addressing you today on the subject of salesmanship; but I wish to qualify that by prefixing it with the term "business building," and speak today from that viewpoint; for a business builder is a salesman, but every salesman, unfortunately, is not a business builder. Some, we find, are business destroyers.

I think it would be well to start the discussion of this theme by a definition of business building; and by that term I mean "the power to make permanent and profitable patrons." I repeat it for the sake of emphasis: "Business building is the power to make permanent and profitable patrons."

And right there, it seems to me, success in life commercially hinges upon the power to make permanent and profitable patrons. With everyone it is the same. With the iron merchant, the drygoods merchant, the lawyer, the doctor, the preacher—it is so with them all. Every one has a patron or patrons. In final analysis everyone has something to sell; and there is a great difference between making a professional success of one's

business and a business success of one's profession.

One may be a great lawyer from the standpoint of knowledge of law; one may be a great physician so far as his knowledge of medicine and human anatomy is concerned; one may be a great artist in any line—for instance in the line of photography—and yet be a failure commercially if he lacks the power to make permanent and profitable patrons.

And so, then, it behooves us to ask next, "What is Salesmanship?" I am going to talk today on the subject of Business Building Salesmanship, and I will define it by saying it is "the power to persuade people to purchase your product at a profit."

I would like to add another "P" to that pod, and say it is "the power to persuade plenty of people to purchase your product at a profit."

And then, again, I would like to add still another "P" to that pod, and say it is "the power to persuade plenty of people to pleasureably purchase your product at a profit." It is those who are pleased with their purchase who become the permanent and therefore profitable patrons.

To please your patron—that's where the profit lies. There may be no immediate profit, that is, on the initial transaction. Many times this service costs so much that the profit on the first transaction is all consumed. Perhaps it is done at a loss, and yet you have secured a profitable customer provided he is one who will come again and tell his friends to do likewise.

There is a kind of persuasion which persuades the customer to come again and to keep on coming, and to tell his friends to do likewise, a kind that makes each patron the first link in an endless chain to bring more patrons; and that is the kind that pays.

It has been well said that all of nature's chiefest laws may be written on the signet of a ring. And the more I study this great problem of life, and business life in particular, the more I see that success in it, first of all, is not a matter of luck, but a matter of law, and that these laws may be written in a very small space indeed.

Some one said to me: "I know a certain poor widow who has had all kinds of hard luck."

I said: "That's too bad, but tell me about her hard luck."

He replied: "Well, as one example of her hard luck we bought her a cow a little while ago and in less than a week the cow was killed."

I said: "That's too bad, but where did she keep the cow?"

He said: "In a little pasture near the railroad track."

I said: "How was the fence?"

And he replied: "Well, the fence was in pretty bad shape."

Then I said: "Now, my friend, that was not hard luck. You will have to guess again. The old cow simply obeyed a law of her nature to roam, while the widow violated one of Nature's laws which reads "You must be careful!"

You can't violate Nature's laws with impunity. If you do violate her laws you must pay the penalty. If a business man is careless in any degree, he pays the penalty in the subtraction from the otherwise possible totality of his success.

From one viewpoint Nature's basic laws of success boil themselves down to three injunctions: First, know thyself; second, and equally important, know the other fellow; and, third, know thy business.

The one who obeys those three injunctions and applies the knowledge of self and how to build self—develop those qualities that lie dormant—knows how to read the great book of human

nature as it is written in the faces and actions of men, and who knows his business, is on the road to mastership.

Now, what do I mean by the term "mastership?"

In every vocation—and that includes photography as well as any other—we find four grades of people from the viewpoint of efficiency.

Down at the bottom is the "don't care" fellow who is in it just for the ride. Among the employes in every vocation there are those who think more of the idle pleasures of the passing hour than they do of permanent and increasing success.

Just above that class is the student class: Those whose minds are awakened, whose lives are governed by law, not luck; and who are hungry for truth, no matter from where it comes. They are students of men and of books and of environment and of things.

Just above the student class stand the adepts, those who are expert in the application of the knowledge gained as students.

And, finally, at the top stand that small class of masters. You will find them standing out in the commercial heavens even as the planets stand out among the stars.

And now I want to call your attention to this fact. No man ever became a master until he was first an adept; he never became an adept until he was first a student; and he never became a student until he roused himself from the sleep of indifference, climbed out of the bed of "What's-the-use-itiveness," and moved out of the "I don't care" colony.

No matter what one is doing, he should aim at mastership. I don't care if it is only sweeping out the office. That office boy's ambition should be to sweep it better than any other office boy ever swept it. If it is a man making pictures, he should have an ambition to make a picture better than anyone ever made one before.

Now, somebody said: "I could not do that."

How do you know you can't?

Somebody says: "I could not do what Edison has done."

How does he know he can't until he has worked as hard as Edison has worked in his line?

It is easy enough to say that all of nature's laws of success boil themselves down to these three injunctions—"know thyself, know the other fellow, and know thy business;" but the gaining of that knowledge and the application of your knowledge of self, the other fellow, and your business, is not so easy a thing.

To that end you inquire, "How are we to know ourselves, the other fellow, and our business?"

The answer to that is, "Through analysis." One cannot know anything thoroughly until he has analyzed it. So let us start, first of all, with the end in view of obeying that great injunction given us by good old Socrates, "Man, know thyself," by analyzing self.

The best analysis of man from a business standpoint is that man equals a body plus a mind.

Our efficiency, no matter what we are doing, depends very largely upon our physical condition. If we eat right, think right, breathe right, and sleep right, we will come pretty near being all right physically. But how many of us pay any attention to these four things—to doing those four things right?

That magnetism which draws cannot be enjoyed in the absence of the right kind of physical condition, and yet there are thousands of people who take better care of their automobiles and bicycles than they do of the human engine.

There are thousands of people who are literally digging their graves with their teeth—violating nature's laws of health in the single matter of eating.

Very few people breathe correctly. Over 80 per cent. of people breathe backward. Watch the little baby or the animal before it is afflicted with civilization, and you will find as it drinks in air, or breathes, the abdomen will expand, and when it exhales the abdomen will contract. That is the right way to breathe.

If we are not careful we get the habit of breathing backward all the time.

However, I am not here to give instruction in physical culture. What I want to talk about particularly is those qualities of mind which make for success. To that end, let us analyze the mind.

How many have ever stopped to think that every mental state we ever experienced or ever will experience can be classified as a state of knowing something, or feeling, or volition?

We have memory, which belongs in the knowing part of the mind. We have faith, which is a feeling. We have action, which is one of the functions of the will.

We can make a complete analysis of man, just as a chemist analyzes a compound; and this analysis reveals fifty-two qualities in man. Every one of those you can classify as a physical condition, an intellectual or knowing, an emotive or feeling, a volitional or will condition.

What I want to get at is a basis for analyzing self and to make it plain that everyone of these qualities is double. There are only two kinds of qualities—the positive and the negative.

Your success as a business man depends upon the number of positive or success qualities which are educed or drawn out. Our failure is in direct proportion to our negative. Every positive has its negative and every negative has its positive.

In the physical man strength has its weakness, health its sickness. Somewhere between sickness and perfect health we are. In the knowing part of the mind, memory has its forgetfulness, judgment its injudiciousness, reason its unreasonableness. In the feelings, faith has its doubt, love its hate, loyalty its disloyalty, honesty its dishonesty, courage its fear. In the will, decision has its indecision, action its inactivity, etc. Some have many of these qualities developed to a marked degree.

I want to challenge your attention to this fact, that every normal individual (and that excepts only the idiot and degenerate) has some memory, some faith, some decision, some action —some of each of these fifty-two positive qualities. Sometimes they are so small that you can hardly discover them, it is true, but yet they are there.

Now, there is a big difference between the egotist and the egoist. If there is any fellow I like to keep on the other side o the street from it is the fellow who is afflicted with "Know-it-all-itis," which is even more dangerous than appendicitis.

The egotist is the fellow who don't know everything, but thinks he does; the egoist is one who, while he may realize that he is just as capable as the other fellow, realizes that he does not know it all and is consciously striving to develop himself.

I like to look upon each of the positive or constructive qualities as a channel for the expression of natural law. I believe it to be a law of God which has been in force since time began, that if you would be successful you must exercise good judgment; and you cannot unless you develop the "mental muscle" of judgment.

I believe it to be a law of God that if you would be successful you must have a good memory—thou shalt not forget. But a man, unless he develops the "mental muscle" of memory, cannot remember well.

I believe it to be a law of God, that if you would be successful you must have faith; and yet no one can have strong faith until he develops the mental muscle of faith. And so it goes wi h each of the fifty-two qualities.

In the will, it is a law of God, that if you would be successful thou shalt not be undecided. If I am guilty of indecis'on I am disobeying a natural law.

My point is this: Each and every man or woman has some of these qualities latent in himself or herself. The question is, what is he or she doing to develop them or draw them out?

I don't believe there is anyone here who would deny that he has some memory, some judgment, some faith, some courage, etc. On the other hand, I believe everybody here is big enough to say that his memory is not perfect, or his judgment is not perfect, or his faith is not perfect, or his courage is not perfect, etc.

Now, the question is, must it remain as nature made it?

One man said to me a while ago: "You can't teach old dogs new tricks."

I replied: "Then don't be a dog."

The dog is bound down with the chains of simple consciousness. The dog knows a whole lot of things, but he don't know that he knows anything. He even feels and wills, but he don't know it.

Now, man is on the higher deck of consciousness. He can stand off and look at himself, and know that he knows and feels and wills. He can even come to know how he knows and feels and wills, and how he can develop his latent powers so that he can know and feel and will better tomorrow than he can today.

And then he comes to the higher plane of consciousness which manifests itself in greater power to persuade people to purchase his product at a profit. Make the man right and his work takes care of itself.

I presume everyone here is familiar with the extraordinary things done by Burbank. You know how he has brought forth the pitless plum, the thornless cactus, and the fadeless flower. He has even made the pear tree get busy and raise two crops of pears instead of one.

There is a maxim among the greatest scientists to the effect that nature unaided fails. And so she does. The fact that Burbank has accomplished those wonders is the result of the application of just two basic principles: First, that heredity is the sum of all past environment and that present environment is more potent than past environment; second, that matter, while unchangeable in substance, is eternally changeable in form.

The plant unaided cannot do anything; but man can become unto himself that which Burbank is to the plant, because he is on the conscious plane.

Science has proved that the average man does not develop over fifty per cent. of his latent brain cells. The problem of how to develop these different qualities is all summed up in one term.

Some of you will perhaps differ with me when I give that term, but I will give you the name of it now. One word expresses it—education; but not in the ordinary acceptance of that term.

Old New England, they tell me, is filled with graduates of Harvard and Yale who are not even able to make a living. Those fellows have not education, but mental indigestion.

I was down in Boston the other night when I saw a great crowd of those fellows coming down the street drunk and dressed up. I said: "Those fellows think they are getting education, but they are getting drunk."

Now, I ask you, what is education? I ask you to go back to its root meaning. I like to go back to the root of things. We find it comes from two Latin words, "e" and "duco," meaning to lead out, to draw out. It never did mean cramming the head with facts. I can see that finger clearly now (holding it at arm's length from the eye), but now (drawing it close to the eye) I do not see it at all.

You can get so close to a thing that you can't see it at all. You pretty nearly have to get out in the game of life for a while before you can stand off and see clearly what education is and what it is not.

Education is to lead out, draw out, the positive qualities of the body, intellect, feelings and the will; and that's the whole matter.

Now, I want to ask you this: Suppose I had a weak muscle and I want to make it strong. How can I aid it and make it strong? If I do not do anything to make it strong it will still be weak and remain so, so what must I do?

It simmers down to just two things: First, I must nourish it, feed it; second, I must exercise or use it. If I had not done that for my muscle it would still have been weak, for that was its natural condition.

If I had kept on nourishing it, and just exercised it by swinging my arm when I walked or used it a little to write, it would not have developed very much. On the other hand, if I had given it plenty of exercise but had not nourished and fed it, it would have still remained weak. If you stop either one of those processes, then eduction or evolution stops; but if I nourish my muscle a little better than the average man, and use it a little more than the average man, natural law compels me to have a better muscle than the average man.

You can all see this physical fact readily. You may not see as clearly the anology between that and the mind, but the analogy is perfect. If I nourish the mental muscle of memory, and then use it, exercise it, natural law compels me to have a better memory. Some men are full of fear, while some are naturally courageous. What must the fearful man do? He must nourish the mental muscle of courage with thoughts of courage, and then he must use it, exercise it.

He can build any quality in himself that he wants to build, but he has got to know how, how to give the right mental nourishment to those qualities and how to use them, and then they educt. That's the key to the situation. Growth and power result from giving the qualities the right mental food and the right use.

Now, then, what's the result? In the first place, if I nourish and use the knowing part of my mind, what happens to me?

How do you describe the man who knows? Take some great man in your profession—Lawrence, for instance. He happens to come into my mind as the inventor of aerial photography. He is an able man. But does that necessarily make a success? Not today. Not from the viewpoint of business building.

We must furnish and use the intellect in order to have ability. But that man may be but the gifted criminal. Again, he might be dishonest. One might be dishonest without being a criminal. He may be disloyal. But if he nourishes the positive forces of the emotive part of life, such as faith, truth, honesty,

courage, loyalty, etc., how do we describe him? We say he is a reliable man, a man of reliability.

Now, these are necessary for success; but if he is physically incompetent, he meets his patrons in a half-hearted way, and they get the idea he is not going to win because he is sick; and then he is no good, no matter how able he is or how honest or reliable he is.

But suppose he nourishes those positive forces of the body right, then what has he got. Endurance. He must necessarily have endurance in order to win success. I have, however, known people of good ability, good reliability, and good endurance to whom I would not give ten dollars a week. I have had fellows in my employ with splendid powers, but they spent so much time thinking about their thoughts and feeling about their feelings that they didn't have time to do anything.

If, however, we nourish and use that third part of the mind, the will, we get action; and what the world needs is men and women who get action. Develop the body and you get endurance; the head and you get ability; the feelings and you get reliability; the will and you get action. Change the order and you get A R E A.

That is the way to take a man's area measurement, the measurement of his power to make permanent and profitable patrons, the measurement of his power to persuade people to purchase his product at a profit. Your power, my power, every one's power is in direct proportion to his ability, reliability, endurance, and action.

We cannot have one weak link without weakening the whole chain. No matter how good the first three are, they are nothing but static or stored power until converted into dynamic power by the action of the will. Take the man of great ability, great reliability, and great endurance—up to that point it is all static or stored power, and it will be until you get the fourth element.

Every normal individual possesses a body, an intellect, the feelings, a will; therefore the raw material out of which to mauutacture more ability, more reliability, more endurance, and more action. The rest is up to us. God made them subject to man. He gave us the natural powers; and He did a wonderful piece of work when he made man, but the rest is up to us.

We now come to the second injunction, "Know the other fellow." This is almost as important as the injunction, "Know thyself." I know that we are all agreed that the better the judge of human nature, the better the business man. A great many say that they are good judges of human nature, but when you ask them how they do it they say "by intuition." That's a good way to side-step, but judging wholly by intuition is hardly to be depended upon. The gentlemen must take their hats off to the ladies on the point of intuition. Intuition is quicker in woman that it is in man. This is probably because of the fact that their spiritual natures are more developed than are those of men.

It is impossible to go into detail today on the subject of character analysis, or the how of reading the human nature. I will, however, state one or two principles. In nature we see two general classes of plants: First, the acid;. second, the alkali. The acid fruits, like the lemon, you will find pointed. The alkali fruits you will find tending toward the round. The analogy is striking in the human plants. The acid type of men and women—those who are incisive, whose remarks are penetrating—you will find

tending toward the pointed features. Those with the round features will, as a rule, be milder and less cutting in temperament.

Please don't misunderstand me. The acid type in the human plant may not be either crabbed or disagreeable; but in conversation his remarks will be pointed, his thoughts will be incisive and penetrating.

In salesmanship, in business in general, it is not good business to handle the acid type the same as you would handle the alkali type.

Another basic principle: The principle of vibration runs all through nature. Some people vibrate at a much higher rate than others. Those who vibrate at a high rate are known as electric temperament. Those who vibrate at a low rate are known as magnetic temperament. These two temperaments are the opposite poles of the magnet. Two positive poles cannot make a current.

If a salesman of the electric type approaches a prospective customer of the electric type, he should consciously lower his rate of vibration. Then he gets the current and is more likely to get the order. If he does not understand this principle, but tries to outvibrate the other fellow, the sparks will fly and there will be "nothing doing."

A few words as to the third injunction, "Know thy business." Here, too, we must employ analysis. We must also employ synthesis. By analysis I mean, of course, the process of separating the thing into all its parts; and from the viewpoint of a business proposition I mean separating it into all its points. In salesmanship it is the arriving at all the points that can be truthfully made concerning the merits of the proposition. By synthesis I mean, the putting of the points arrived at through analysis together again in a way which will make them naturally appeal to the human mind.

Today it is not words and words and words that will sell goods; it's points and points and points, and each should be a pointed arrow that goes straight to the minds and souls of men.

My logic is not perfect; but it is very much better than it was before I consciously studied the laws of logic as applied to business conversation. I hardly think there is one present in this splendid audience today who would claim his logic is perfect. As one improves his power of logical expression, he intensifies his power to make permanent and profitable patrons. We can certainly all agree that, other things being equal, it is the best logician who is the best business man. As a means of knowing self better and knowing the other fellow better and understanding one's business better, I now call your attention to a fourth branch of learning; *viz.*, commercial psychology.

An understanding of psychology is one of the greatest assets for the business man. The deal is not made down in the pocket. It is not a material thing; it is a mental thing. It is made in the mind. Psychology is the study of mental states.

From one viewpoint, it resolves itself to the problem of inducing in the minds of the buying public six mental states. Commerce is all of that, but from one viewpoint that is all it is.

You can measure a man's power to make plenty of permanent and profitable patrons by his power to induce in the minds of the people in his community or his range of acquaintance, whether local, national, or international, the six mental states which I shall enumerate as follows: First, favorable attention; second, interest;

third, desire; fourth, action; fifth, confidence; sixth, satisfaction.

The first four of these are absolutely necessary for the simple transfers of property from one to another. As a rule, the first five are necessary, because very few indeed are the sales that are made in the absence of confidence. As a means of building business the sixth is always necessary, viz., satisfaction.

It is a law of mind as exact in the realm of the mind as is the law of gravitation in the realm of physics, that favorable attention properly sustained will change to a feeling of interest. It is also the exact law of mind that the interest which is born of favorable attention, when properly sustained, will change to the feeling of desire. It is also an exact law of mind that the desire, if made strong enough, will change to action, which in commerce is the act of buying.

If these four mental states are induced in such a way that the feelings of confidence and satisfaction are obtained and retained, then the result is the making of permanent and profitable patrons.

I believe in advertising, but the greatest advertisement in all the world is the wagging tongue of the satisfied customer; and you cannot get that kind of advertising in the absence of satisfying your customer. You cannot satisfy your customer in the absence of honest service in quality of goods and excellence of attention in every way.

The philosophy of Lincoln is a good one for the business man to follow, the philosophy which was expressed by him in the sentence, "You can fool some of the people all of the time and all of the people some of the time, but you can't fool all the people all of the time."

Had Lincoln lived today I think he would have added, "you can't fool very many of the people very much of the time." You cannot make plenty of permanent and profitable patrons unless you so deal with such patron that he becomes a satisfied patron, and you can't do that by trying to fool him in any way.

There are people yet, today, even in this enlightened twentieth century, who are laboring under the delusion that business is a game of graft and greed, in which it is a case of "every man for himself, and the devil take the hindmost."

The truth is, however, that a greater piece of business advice was never given than by Him who said, "Do unto others as you would have them do unto you." The application of the golden rule pays big dividends even if one looks at it purely from the standpoint of dollars and cents.

Another great piece of business advice which involves an important point in business psychology, reads as follows: "According to your faith be it unto you." We must have faith in the Eternal, the Omniscient, the Omnipresent, but we must not stop there. We must have faith in ourselves. We must have faith in the other fellow, that he is going to buy our goods, and we must have faith in the house we represent and the goods we have to sell. No salesman can be successful without that faith, and a great degree of it.

There are, however, many salesmen who approach a customer with the words on their lips, "You ought to buy my goods," but with the fear thought in their mind, "I don't believe you are going to." The mind of the prospective customer catches the mental message and heeds not the spoken words, and then the customer sends back the answer, "I guess I won't, I guess I won't."

When that almost weirdly wonderful thing, wireless telegraphy, is a demonstrated fact, and we know that we can send messages through the ether to be recorded upon a coldly metallic thing, don't you think it's time for you or for me, as human beings, to be careful what kind of mental messages we send to be registered on as highly sensitized a thing as human consciousness?

The mental muscle (of course you understand that when I refer to "mental muscle" I always speak figuratively) of faith can be built up, drawn out, developed by him who understands the laws of self-building as certainly as can the weak muscle in the arm be strengthened.

In conclusion, I want to ask each of my listeners to draw three circles on the screen of consciousness. Label the outer circle "Business Building," and define that as "the power to make permanent and profitable patrons."

Just inside that outer circle draw another circle, and label that one "Salesmanship," and define that as "the power to persuade people to purchase your product at a profit."

Inside that second circle draw the inner circle, and label that "Service," and define that as "the power to serve to the end of satisfaction and profit of both buyer and seller."

By means of these three circles is it not possible for us to see that, while the body of commerce is business building, the lifeblood of it is salesmanship, while the heart that pumps the lifeblood of business building salesmanship is service, the power to serve to the end of satisfaction and profit of both buyer and seller?

It is a literal truth that "the greatest among you shall be your servant." The master lawyer is always the master servant of his clients. The master doctor is always the master servant of his patients. The master photographer is always the master servant of the people in his line of work.

If you want heat you first build a fire and then heat comes as a natural consequence. If you want the warmth of money you must first build the fire of service, and then the money comes as a natural consequence.

I now ask you to draw three lines on the screen of consciousness. Let the first line represent the individual or institution. The second line following the first line, with only a dash between, let this represent the service that the individual or the institution renders. And this line following the second line, with only a dash between them—let this line represent the profit that is made.

Make the service line great and the profit line will be correspondingly great, and then the individual or institution will be great. If it were possible to reduce this middle line to zero, the profit line will gradually be reduced to zero, and then the individual or institution will be reduced to zero in the cold weather of the bankruptcy court.

The profit one makes is simply the pay he gets for the service he renders.

It is a literal truth, that "The science of business is the science of service. He profits most who serves best."

Eau de Javelle, or Labarraque's solution (sodium hypochlorite). Shake up bleaching powder (1 oz.) with cryst. soda carbonate (1½ oz.) previously dissolved in a little water. Filter. Shake up undissolved residue with plain water, and again filter. Use filtrate. Can be acidified with oxalic acid, when it removes stain even better, but attacks silver image. Safest when alkaline.

THE MONCKHOVEN INTENSIFIER.

I WAS turning out a box of very old negatives the other day, and came across half a dozen all together, of which I had a very distinct recollection. Not only could I date their production, but I could recall the treatment they received. They were exposed on certain sports with which a country town celebrated the first Jubilee (1887), and were all shutter exposures. At that date Thomas' plates enjoyed a great reputation for speed, and these were some out of the first box I used; and being strange to them, and far from proficient in photography at all, they were all much too thin to be of any use. The Monckhoven intensifier was then used a good deal, and it speedily converted these into very good printing negatives. As most of us have need at times for an intensifier which will give plenty of density without showing any tendency to clog up the shadows, a short description of this very efficient intensifier may be of use.

The Monckhoven intensifier consists of two stock solutions, which keep very well, and may be used over and over again so long as they are seen to remain in good working order.

Its chief drawback is that it involves the use of that very poisonous substance, potassium cyanide, but as most intensifiers employ mercuric chloride, which is also highly poisonous—indeed, this one calls for it, as well as for the cyanide—there is not much in the objection.

As in all intensification processes which involve the use of mercury, the negative must be thoroughly washed, to get rid of the last traces of hypo before being intensified. A good plan if the plate has been dried before intensifying, is to leave it to soak for an hour or two in a 5 per cent. solution of alum, and then to wash it in running water or in several changes for a quarter of an hour.

The two solutions are made as follows: The first, which we will call A, consists of a hundred grains of mercuric chloride and a hundred grains of potassium bromide dissolved in water to make ten ounces. They may be put into a ten-ounce bottle a day or two before being wanted, and the bottle is then filled up with water and shaken occasionally. If any of its contents remain undissolved, no harm will be done, if the solid particles are not poured out on to the negative.

The second stock solution (B) may be made by dissolving a hundred grains of silver nitrate in five ounces of water, and dissolving a hundred grains of potassium cyanide (a deadly poison) in another five ounces. The cyanide solution is then added to the silver nitrate a little at a time, stirring all the time. At first a thick precipitate is formed, but on continuing to add the cyanide this collects together in coarse particles, and finally redissolves. As soon as the solution is just about clear, the addition of cyanide should be stopped, and any of the solution over should be poured away where it can do no harm.

The use of these solutions is quite simple. The negative to be intensified is immersed in A, and the dish is rocked until the plate has bleached right through, just as in ordinary intensification. It is next washed under the tap for at least a quarter of an hour. The washing must be thorough, or the action will be irregular. It is then placed in B until the blackening action seems to be complete. As soon as this is the case, the negative must be

taken out of B and washed at once under the tap, as this method possesses the peculiarity that if B is allowed to act for too long a time it will begin to reduce the density of the shadow details, and the negative will be injured.

This tendency to reduce the plate if the solution is allowed to act for too long has been quoted as a drawback to the process; but in actual work there is no real difficulty in deciding when the action of B has gone far enough. If the negative is then taken out at once, and washed, no perceptible reduction will take place. Of course, if the washing is delayed, the solution may be given time to commence reducing.

The degree of intensification which is given by this method is much greater than can be got with mercury and ammonia or mercury and sulphite, as generally adopted. The color of the image is a strong brown black, which is quite as powerful in the printing frame as it seems to the eye. There should be no staining of the negative.

The method has another peculiarity, not yet pointed out, and that is that if the first application of the intensifier has not proved to be sufficient, a second or even a third may be given, all the stages being simply repeated, in the way just described. It may be said that this is an advantage; but it is doubtful if it has any practical value, since a negative that was so thin that a single application of the Monckhoven intensifier would not give it all the density necessary would appear so weak that no one would be likely to try intensification on it at all.

Mercurial methods of intensification are generally credited with giving us negatives which are not very permanent, the intensification disappearing after a time and leaving only a thin yellowish brown image. It is hard to say positively that these negatives, which are now twenty-three years old, have not altered in the slightest; but they do not seem to have altered, and are certainly as good printing negatives today as they ever were. So that the process is at any rate capable of giving a result which should be permanent enough.—*R. Child Bayley in Photography.*

RELATIVE TONE IN PHOTOGRAPHS.

THE pre-Raphaelites were so intent upon the importance of rendering individual parts that their eyes were shut to the true values of a picture. The Chinese and the Japanese decoration, though quaint and unfamiliar to us, often delights with subtle appreciation of relativity of tone, so that we forget the grotesque representation.

A genuine delight may be had from studying the effect in the intricacies of color harmony in a real Persian rug. It is not in the imitation.

Rembrandt had a just appreciation of the value of concentration of light and shade, but Valesquez was the great master of values. His pictures are wonderful in their vigor, combined with delicacy.

The proper rendering of tones, even where there is no color, suggests color to the imagination. So that a photograph or an engraving, if the values are right, atones for loss of color or is even to be preferred to an ill-colored picture. Leslie tells us that when

Reynolds painted "Dido on the Funeral Pyre" he put together billets of wood, covered them in part with the rich objects he had introduced in his painting, and posed his model on it in the attitude and in the dress of the expiring queen.

This, he remarks, arose from no want of imagination in the painter, nor with the intention of imitating all the minute details of the thing he put together, but because he knew that a degree of general truth and harmony of light and shade and color might thus be obtained, and accidental beauties of combination suggested which might not otherwise occur to him.

Reynolds' own remarks on a similar practice by Gainsborough are excellent, and should such contrivances appear to consume time unnecessarily it can only be said that far more time is often lost in endeavoring to guess at effects which such contrivances show us at once.

Wilkie in his earlier practice often made small models of the rooms that formed the scenes of his picture, with the proper doors and windows, and placed the general forms of his groups and the furniture within, and he had no reason afterward to regret such performances as loss of time.

All of Nature's accidental combinations are, it is true, equally beautiful. Some delight us more than others, and some may even be accounted positively ugly, but Nature never offends by discords. Nature subdues one color with the reflections of others, or intensisifies brilliancy by interpenetration of light.

Really, no object can stand isolated, or rather, we have our impressions of things modified by surroundings, and it will be acknowledged that haphazard association of objects, however individually beautiful, will affect us unpleasantly if not combined with an appreciation for the law of modification of juxtaposition.

It is, therefore, of great matter to the painter to imitate the appearance of every object with reference to things surrounding. It will not do to paint a model in a studio and add a background landscape painted from Nature. Yet we see quite eminent works of painters on which the artistic crime is committed, and in this respect the artistic professional is an arch villain steeped in the crime.

Fortunately, the photographer is not troubled with the rendering of form (except in so far as it bothers the impressionist), the unerring pencil of light makes everything for him; but unfortunately the pencil of light has no feeling for color or color values, and all is left to the photographer, who must cultivate, so to say, a sense of grouping and an appreciation of the wonders of light and shadow.—*Twentieth Century Photographer.*

HOW TO BEGIN! SUGGESTIONS TO THE AMATEUR PHOTOGRAPHER.

BY GEORGE G. ROCKWOOD.

SINCE the appearance of my recent articles on window lighting, I am in receipt of many letters, usually from amateurs or those who would be amateurs, asking "How can I be a photographer?" and "Can I work without a skylight?" The latter question I have already treated in the

magazines, but will now briefly recapitulate more specifically, in behalf of the unborn amateur.

First. The large camera manufacturers, the Eastman and Ansco Companies, issue little guides or "directions" that start at the first unpacking of the camera and clearly and explicitly guide the novice in the use of the instrument. After a study of the camera, the varying foci, the use of the shutter (without making exposures of plates or films), proceed as pointed out in the "instructions" to exposures, development, and sometimes to tears! But the dawn of better results will come, and the novice will dream of amateur exhibitions, medals, and diplomas. Now follow with some of *The Photo-Miniature* series, published by Tennant & Ward, selecting only one or two at the start bearing on the mechanical or "how to make, etc." series. Afterward the more advanced books which bear upon the artistic side—lighting, posing, and composition.

Second. Concerning the need of skylight. I have found lately that my best pictures were made outside of a professional skylight, by ordinary windows. The finest specimens I have were so made; that is, in private houses.

Improvement comes with experience. You will find yourself advancing with every picture. Do not copy any one else's style, but establish your own; and do not be afraid of being original.

A Portrait Light in Every Household.

As a start, secure a couple of yards of cheesecloth and tack upon a frame over a window to diffuse the light. Cut off with black muslin or a blanket the lower half of the window. At some little distance, four or five feet, on the shaded side, put up a reflector, which may consist of a sheet hung over a chair. Use your eyes and brain to determine how near, or far, that reflector should be, being careful to only make the shadows *transparent* to avoid blackness or opaqueness. *Whatever your eyes see the camera will record.* Avoid conventionality or conventional photographs as you ordinarily find them. Do not be afraid to use your own conceptions of posing. The very best results are the accidental poses that people make for themselves. In private houses I will place a chair without any verbal suggestion or direction, when the victim will almost always sit down and take a pose absolutely natural, unconventional, and often artistic.

TRADE NOTES.

ANSCO COMPANY, of Binghamton, N. Y., have just issued a new catalogue wrapped in a very handsome art cover in colors. The well-known Ansco cameras, cyko film, cyko paper, and chemicals, are listed and described in detail, the whole making a very complete and handy list of photographic necessities which every photographer should have by him. The front cover alone makes it well worth writing for. Write to the ANSCO COMPANY, Binghamton, N. Y., for a copy.

IMPERIAL ORTHOCHROME NON-FILTER PLATE is the name of an unusually remarkable plate that has been put on the market by the IMPERIAL DRY PLATE CO., London, England, and for which G. GENNERT, New York, is the sole U. S. agent. This plate is isochromatic in a very high degree; and by a special process it is prepared for color work without the use of a color filter, the emulsion being specially sensitive to the yellow and green rays. Although the filter quality is embodied in the film, the speed of the plate has not been retarded as might be expected. With a speed number of 200 H. and D. it is fast enough for all ordinary instantaneous exposures, even on a dull day. For all outdoor work, with varying greens of spring foliage,

and for copying pictures and colored objects the results obtained without a screen—with the prolonged exposure necessary—are simply incredible until you have tried it yourself. We have used the plates on series of extreme and trying subjects and secured negatives with splendid color values. Try a box when next you want true color effects.

GEO. MURPHY, INC., of 57 E. 9th St., New York, is getting out a new three-hundred page catalogue with over seven hundred illustrations. It will be large, complete, and very much up-to-date. This is one of the catalogues every photographer should have. Ready within a few days. Send your name and address now and make sure of a copy.

THE BACKBONE of the ever-increasing picture postcard vogue must of necessity be the local view card. Christmas, Valentine, Easter, and seasonal cards have their day, and must then be retired, but the local view cards—like the brook—go on forever. Good views can be made of any locality. The National Colortype Co., of Cincinnati, O., are equipped for the rapid production of high-grade colored postcards and can make deliveries in two to three weeks—of the cards that sell. Ask them for samples, which they will be glad to send if you mention this magazine.

THE DEFENDER PHOTO-SUPPLY CO., of Rochester, N. Y., have just issued the fifth edition of their well-known instruction book, *The Tipster*. This little volume—growing bigger and handsomer—is a complete handbook on the subject of Defender products and their manipulation. We would advise our readers to secure a copy, which will be sent free on application. It is well printed, attractively illustrated, and the information given is complete and comprehensive.

MR. J. O. JARRELL, for the past six years in the employ of the Bausch & Lomb Optical Co., has associated himself in business with The Topley Co., of Ottawa, Canada. Mr. Jarrell has many friends in the photographic trade who will join us in wishing him success in his new field of work. He takes with him the goodwill of his associates, who, while deploring his departure, are glad for the larger opportunities which are before him in Canada, where he will continue to exploit the Bausch & Lomb products.

THE BERLIN ANILINE WORKS desire to offer an apology to the many photographers who have responded to their advertisement regarding the new formulæ book. It met with a great many delays from various sources, but is now coming off press, and copies are being mailed as fast as they are issued.

A PRIZE competition of unusual proportions is being arranged by the manufacturers of ENSIGN ROLL FILMS. The sum of $1250.00 is offered, divided into 94 prizes, 40 of them open to American competitors only. These valuable cash prizes are offered for the best strips of six negatives uncut, made on Ensign Roll Film. In Class I, $250, $100, $50, and $25 are offered for the first, second, third, and fourth prizes, respectively; for strips of six bright, sharp negatives on a single strip of Ensign film; negatives smaller than 2¼ x 2¼ not eligible—no other limits to size. In Class II, prizes of $100, $50, and $25, and fifteen prizes of $10.00 each are offered for not less than three good bright negatives on a six exposure spool of Ensign film 2¼ x 2¼ or larger. In Class III, prizes of $50 and $25, five of $10, and twenty-five of $5, are offered for strips of six negatives on Ensign film exposed in an "Ensignette" camera—a small vest-pocket roll-film camera popular in England. This class is practically limited to England. In Classes I and II, the only conditions are that complete and uncut strips of Ensign film showing the emulsion number perforated at the end, and in a size not less than 2¼ x 2¼. Ensign roll-film is obtainable from independent dealers or G. Gennert, 24 E. 13th St., New York, American Agent, and who will be glad to mail detailed circular on request. The competition is open until October 31, 1910.

THE SUSSEX PHOTO PAPER CO., of Newton, N. J., are so sure of the results to be obtained on "Crystalla" and "Chloralla" developing papers that they are prepared to send free samples to any professional photographer who will write in on his letterhead. They are both good papers and well worth trying.

ENOL, the latest new developing agent, for use in connection with hydrochinon, producing a perfect developer, especially fine for prints on developing paper. Put up by the Eastman Kodak Co. and guaranteed under their "tested chemicals" mark.

MR. A. N. CAMP, of Jamestown, N. Y., where he has been engaged in photography for the past twenty-five years, and wishing to recognize the services of his assistants, has incorporated the CAMP ART COMPANY and made A. D. Rice and J. Stuart Husband, vice-president and secretary, respectively, in recognition of faithful and efficient service. The new company will put forth every effort to make the Camp studio more famous than ever.

WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
MRS. EDWARD L. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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Single copies, 25 cents. Subscriptions begin with current issue unless otherwise ordered. Original manuscripts on photographic subjects are solicited, and, if accepted, will be paid for on publication.

EDITOR'S TABLE.

THE following announcement has been received from the Buffalo Fine Arts Academy:

RECOGNIZING photography as one of the mediums of expression in art, The Buffalo Fine Arts Academy will hold an exhibition of photography in the Albright Art Gallery in November, 1910.

To ensure the best possible representation the arrangements have been placed in the hands of that organization which has done the most to promote this particular branch of art, The Photo-Secession.

The exhibition will be of an international character, comprising in addition to the work of America, some of the best prints that have been made in England, Austria, Germany, and France. It will be retrospective, but also representative of the latest work.

Its distinguishing characteristic will be the Group System. Thus, in the first place, it will include the representation of a number of individual exhibitors selected by the Photo-Secession, the work of each being shown in separate groups by means of the "alcove method" of hanging. Secondly, the aggregate of the prints from each of the foreign countries will be similarly displayed in separate groups. Thirdly, there will be a group exhibit of the work of Americans who hitherto have not had the opportunity of being adequately represented in an important exhibition.

Those desirous of exhibiting in the last-named *open section* are requested to send their prints, unframed, express prepaid, to 291 Fifth Avenue, New York City, where they will be judged by the *Photo-secession*. All prints for this class must be delivered to the above address before September 10. The selection will be governed by the principle of independent vision and quality of rendering. To eliminate accidental successes each exhibitor in this section must be represented by at least three examples. In the case of selected prints the express charges will be refunded by the *Albright Art Gallery*, which also will defray the expense of returning them to their respective owners.

Any further information that is desired may be obtained by addressing *The Photo-Secession*.

PHOTOGRAPHY must be advancing when poets find it a fit theme for their fancy. The following lines addressed to a "Cooke" lens sold some six years ago by a reader of *Amateur Photography* and only recently repurchased by him:

Canst tell me why, old lens with glasses bright,
I yielded to insidious pretences
Of others of thy race? For though such lenses
Full covered every inch of my emulsion,
Yet fool was I to compass thy expulsion
And send thee to the distant "ewigkeit."
Ah, Taylor, Taylor! It was *not* the voice
Of Hobson's choice.

Ah, for a space, 'tis true, the glass of Jena
Around me wove its mystic, potent spell,
Which led me on to barterings—to sell
Thy trusty form to unknown, alien hands;
And lo, thou wentest forth to far-off lands,
And left me but to sing a plaintive *scena*,
Lamenting my sad loss; ah, think of that,
Anastigmat!

But now again my willing fingers close
Around thine unpretentious "Unicum;"
Again I gaze in admiration dumb
Upon thy shining, highly lacquered hood.
My joy, I ween, can well be understood,
And who will grudge the thought that paltry prose
Is quite inadequate to tell my glee
On meeting thee?

There are three more verses which can be had from TAYLOR-HOBSON CO., St. James Bldg., New York, if desired.

Portrait, for May, published by Ansco Company, has for its front cover a very good portrait of Charles L. Lewis, that genial, jovial Toledo blade. His autobiography contributed to that issue is a masterpiece.

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2 CENTS PER WORD. Minimum charge $1.00 for advertisements on this page, but cash must accompany order. Assistants seeking positions may advertise without charge. We cannot mail replies in any case. Advertisements must reach us before 15th of month.

WANTED a good photographer to take half interest in the best studio in one of the best towns in Northern Illinois, of over 20,000. Studio just opened a year ago, in a new location, centre of town. Good chance for the right man. Must have $1000 cash and be an all-round man, especially good retoucher and operator, as my eyesight is failing. I wish to start something new in photography, which will require some of my time away from studio. Act quickly, for this is a splendid opportunity. Only good men or women need apply. Send photo of self, recommendations, and business ability in first letter. Address Leonard, Room 505, 122 E. 25th Street, New York City.

FOR SALE "Go West, Young Man." The country is now "Grown Up," so you need not wait for that. What is more, here is a studio all ready for you to step into and begin doing business at once. Entire floor 50 x 115 feet. Large rooms arranged in new building for studio. Finely decorated. Furnished and equipped with the best of everything; Dallmeyer lenses, cameras up to 20 x 24. Heavy grounds and accessories. 42,000 negatives. Low rent, elevator, steam heat. Light, 20 x 30. In present location 22 years. Forty years under the light is enough, and I am going to retire. Finest opening for a live competent man—or two men with a little money. $2,500 takes it. Population, 225,000. Address A. E. Rinehart, 1630 Arapahoe Street, Denver, Col.

FOR SALE Goerz Lens Series III, number 3, Sector Shutter, good as new. Price $50. Address, J. E. Peters, So. Framingham, Mass.

TRAVELING SALESMAN Wanted for Western territory by a Photo Supply House. Must have experience and full knowledge of the line. Apply with references to Lux, Room 505, 122 E. 25th St., New York.

SPECIAL Opportunity to secure back numbers of WILSON'S PHOTOGRAPHIC MAGAZINE at a low price. Volumes 1900, 1901, 1903, 1904, 1905, 1906 complete and in good order. Volume 1902 lacking October, and Volume 1907, Nov. and Dec. Much below cost for quick offer. Address Dab Room 505, 122 East 25th St., New York.

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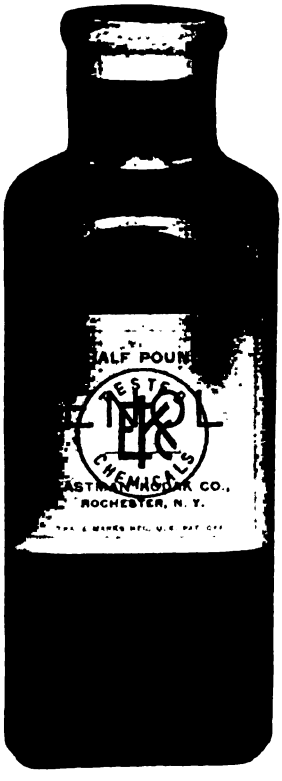

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Vol. XLVII ✣ ✣ ✣ ✣ No. 643

JULY, 1910

WILSON'S PHOTOGRAPHIC MAGAZINE

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FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVII JULY, 1910 No. 643

THE CONVENTIONS.

WITHIN the present month the two most important associations will hold their annual conventions.

The Photographers' Association of America gathers together in the city of Milwaukee for the week beginning July 11, and two weeks later the Photographers' Association of New England meets in Boston.

The two big meetings between them should command the attendance of photographers from almost every section of the country. The photographer who fails to attend one or the other is falling short in his duty to himself and his profession.

Photography as a profession is not yet sufficiently well established to allow every man to practise it in his own particular way, and regardless of every other member of the profession.

Like every other profession, it must follow along certain well-defined lines of methods, manners, and morals. Much standardization of methods, regulation of quality and prices, and suppression of evils will have to be accomplished before photography will be on a plane with architecture, law, medicine, engineering, or teaching.

These things can only be done by the constant efforts of representative bodies formulating the ideas of individuals. The convention offers the best place for the exchange of ideas between individual members.

Present-day conventions are conducted along lines that will sooner or later have a decided influence on the uplifting of photography as a profession. As photographers attend conventions in greater numbers, the sooner will we see the uplift.

In photography, as in any other profession, there will always be a great disparity between the work and remuneration of the man at the head and the men at the tail of the profession. Just as the Stanford Whites can command thousands of dollars for a design, while a plan for a house can be had for twenty-five dollars, just so will there be Histeds getting $100 for a print, while postcard portraits retail at three for twenty-five cents.

But these are the extremes. It is the general average that the convention is slowly but steadily raising. The small man can attend a convention and see the best men in the profession demonstrate

their methods of making the highest-priced work. True, he will not go home and be able to turn out that class of work; but he can go home and turn out better work than ever before.

The conventions are able to secure lecturers, demonstrators, art critics that the individual photographer could never come into contact with. Every photographer who is securing these benefits for himself through a convention is also making it possible for other photographers to enjoy the same benefits.

If every professional photographer would join his state association and make a point of attending the National convention on every possible occasion, photography would begin to take its proper place among the professions and would secure to photographers higher prices and greater dignity.

A FINAL WORD ABOUT THE CONVENTION WHICH WILL BE HELD AT MILWAUKEE, JULY 11 TO 16.

It's mighty near all over but the shouting, as the term goes; but there is just time, still, for the forgetful to get exceedingly busy and to finish up those three pictures apiece which every self-respecting photographer is going to send into the National this year.

For it's only a few days now to the opening of the "very best ever" meeting at Milwaukee. Everything that can possibly be done to make the week of July 11 interesting has been done; schools of photography, lectures, entertainments, exhibitions, etc. There is enough of all kinds for each to pick and choose if he is so minded. And yet everything is so arranged that each visitor to the convention can take in *everything every day.*

Let us capitulate briefly: Artificial Light Studio, with M. J. Steffens, Stein, Strauss, Doty, and many others.

Daylight School, with Ryland Phillips, Dudley Hoyt, Wm. Shewell Ellis, and Theodore Endean.

Practical Instruction Lecture, by Ryland Phillips.

Art Lecture and Criticisms, by Geo. W. Stevens, Ryland Phillips, and Miss Lena McCauley for the Federation of Woman Photographers.

Business Lectures, by A. F. Sheldon and Jaun C. Abel.

General exhibition with over 400 individual exhibitors. Women's Federation Exhibition. Largest exhibition of pictures ever held at a National Convention.

Manufacturers' Demonstrations, by many of the leading manufacturers.

Theatre parties, steamboat rides, concerts, and coaching parties for the ladies.

The official daily program will keep everybody advised of the day's proceedings.

All-in-all, did you ever attend a convention that had just quite as much to offer; that showed promise of such real instruction and entertainment? And the best of it is that the schools are working on the experience gained during the past two years, so that the leaders and instructors know just what to do to get out the work that all may see the results before they go home. With the artificial-light studio, Commodore Steffens goes further, for he promises to show the finished work at *every session.*

Really there is little more to add.

That the attendance from the Middle West States will be large, is assured. It has been some years since a National Convention was held in this part of the

country, and the schools as conducted by the National will be new to most. From the other sections of the country, however, the attendance promises to be fully as good, if not better, than usual. Times have improved somewhat during the year, and besides, photographers are everywhere waking up to the necessity of keeping abreast of the times, and this they can only do by attendance at conventions.

The convention is not unlike the school of our younger days. It is a place where we all go to learn, and it is a place where we make many friendships and fun unlimited. We are never too old to learn; neither can we ever learn it all, but the National Convention will do much toward aiding you in your artistic and financial progress.

Then, look at it another way. You have probably worked hard all the winter and spring. You may not want to acknowledge it, but you need a rest. Every man does who works hard for so many months a year. A vacation is every man's right. Now the Convention at Milwaukee is not all hard work by any means. For the man who takes it in the right spirit it is a vacation. It is altogether different to his everyday work, and will relax his mind and put renewed energy into him.

Milwaukee, too, is a beautiful summer resort. It is cool, lively, prices are not high, and good company is there.

Then, if you don't want to take the Convention in as a convention, go to Milwaukee anyhow the week of July 11, and take your vacation there.

It's worth while, anyway you look at it.

So, let's all say:

We'll all be there!

Yours in anticipation,

A. T. PROCTOR,
President P. A. of A.

WOMEN'S DAY AT MILWAUKEE.

A FORCIBLE feature of the program at the Convention of the Photographers' Association of America, Wednesday morning, July 13, at Milwaukee, will be the talk by Miss Lena McCauley, of the Chicago *Evening Post*, who is well known throughout the West as a writer, an art critic and a lecturer. Her discourse is entitled "The Art of the Hour," and will be copiously illustrated with reference to pictures on exhibition and with lantern slides. This talk and the one by Ryland W. Phillips will supplement each other. Mr. Phillips is well known as a practical photographer with strong artistic tastes. Miss McCauley, on the other hand, has considerable acquaintance among photographers, but is primarily a critic, having examined and analyzed exhibitions in this country and abroad from the art standpoint. Each talk will therefore include something which is not in the other, and it is certain that any studious visitor to the Convention cannot but feel that his horizon has been broadened and his powers increased by these two scholarly and interesting discussions.

Miss McCauley's talk is arranged by the Women's Federation, but it is open to all members. As has already been said, this is the first year that women camera-workers have attempted to carry out serious plans as an organization, and while this woman's talk is only one of the many valuable instructions planned for the week, it is expected that it will prove so attractive that not mere chivalry but keen interest and benefit will bring together as large a group of members as at any other meeting during the Convention.

To the Women Photographers who will exhibit at the Milwaukee Convention:

First. All women exhibitors are reminded that pictures must be in Milwaukee by the sixth of July, in order that they and the Federation shall receive all of the benefits planned. When you read this take an immediate glance at your calendar! You should be represented in this exhibition. Do not allow carelessness or accident to prevent appearance with your colleagues in the First National Women Photographers' Exhibition of America.

Second. Do not forget that the Convention offers to you opportunity for growth. Miss McCauley will answer personal inquiries, will analyze, criticise, and suggest improvements in the artistic treatment of your subjects. She will be in Milwaukee Wednesday, and another day to be announced later, for this precise purpose, to help you.

Third. See that your exhibit is properly packed and marked before mailing, with return prepaid address enclosed. Note plainly on your entry blanks if reproduction of pictures is forbidden. *Any photograph not so marked will be considered available for publication.*

MARY CARNELL.
President, Philadelphia, Pa.

JUNE 13, 1910.

PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK.

Metropolitan Section.

THE annual meeting of Metropolitan Section was held at Keen's Chop House, Tuesday, May 3, at 8 P. M., preceded as usual by the Dutch Treat Supper at 6.30. Chairman MacDonald presided, and twenty-nine were present.

The following candidates for membership were elected: Messrs. Irving Underhill, Oliver Lippincott, Otto Wurst, D. G. Archibald, Wm. M. Hollinger, Lionel Wurts, Norman Wurts, J. N. Mandelkern, of Manhattan Borough, F. A. Walter, H. M. Ollivier, L. L. De-Anquinos, Alex. Arnold, of Brooklyn Borough, John Rosch, of White Plains, N. Y., Francis E. Seabury, of Mt. Kisco, N. Y., fourteen in all.

The Secretary and Treasurer made his report for the year showing this to be the record year in the history of the section. An active membership of fifty-two, and one honorary member, fifty-three in all.

The annual election of officers was held, and the following were elected to serve for the coming year, Chairman, A. F. Bradley; Secretary and Treasurer, Alexander C. Kalt, both being elected unanimously.

On motion of Mr. MacDonald, seconded by Mr. Puffer, the following resolution was presented as subject for debate at the next meeting:

Resolved, That it is the sense of the Metropolitan Section that it is unprofessional for a photographer to rent premises in a building where there is already a photo establishment.

On motion the meeting adjourned.

FREDERICK W. TYLER,
Secretary.

Buffalo Section.

At the annual meeting of Buffalo Section, Edward H. Seifert was re-elected Chairman, and Frank H. Bliss, Secretary-Treasurer, and F. James Sipprell a member of the Executive Committee.

This was a very enthusiastic meeting, twenty members being present. One new member was elected, and an ex-

hibit of eighteen different prints was held, all made by members from the same subject, Mr. Louis Ende. This method of each member seeing what they can secure from the same subject is creating enthusiasm among our members and proving a very interesting feature of our section work.

Final arrangements were made for the river party, to be held on July 19.

FRANK H. BLISS,
Secretary-Treasurer.

Rochester Section.

The annual meeting of Rochester Section was held at the Studio of J. E. Mock. After disposing of unfinished and new business, the section proceeded to the election of officers for the year. The result was as follows: Chairman, A. L. Russell, of Lyons; Vice Chairman, Irving Saunders; Secretary-Treasurer, Chas. L. Goetz; Member of Executive Committee, Louis D. Amanda, of Rochester.

The section adjourned to meet on June 8.

CHARLES L. GOETZ,
Secretary-Treasurer.

Binghamton Section.

At the annual meeting of Binghamton Section, Mr. Arthur F. Newing was re-elected Chairman and R. D. Adams Secretary-Treasurer. One new member was elected.

Binghamton Section at this meeting decided to advertise photography on the co-operative plan for the good of all.

R. D. ADAMS,
Secretary-Treasurer.

THE ELEMENTS OF NEGATIVE-MAKING.*

SOME of our friends feel it is a little out of place for the R. P. S. to discuss such elementary subjects as the principles of negative-making, but, personally, I think it an excellent thing to go back to genesis. Nowadays we are all becoming so clever that we are in danger of forgetting essential first principles. The artist relies on his feeling rather than his drawing; politicians solve financial chimeras without studying the laws of exchange; and we fall back on processes to create prints on paper in which the intervention of a negative seems almost impertinence. But so surely as the aviator who neglects the law of gravitation will forcibly make contact with mother earth, so will the artist, politician, and photographer find their work is without lasting effect if they neglect to build on the solid foundation of fact.

Therefore it is as a photographer, with a strong sense of the value of photography as a handmaid to the arts and sciences and industries, that I initiate this discussion on negative-making; I have nothing new to say or show, but can only remind you of such truisms as are to be found in every text book, but collated and brought into order by the light of personal experience.

I sometimes wonder what sins I have committed in a previous incarnation; at least it must be for them that I have to see sometimes hundreds, and sometimes thousands, of negatives during each week of my existence. Now, amidst all this mass of good

* A paper read before the Royal Photographic Society, of Great Britain, by Mr. James A. Sinclair, F. R. P. S., and reprinted from the Society's journal.

silver and good gelatine, and good glass or good celluloid, there is but a small percentage showing first-rate technique. It is true that most of these negatives are on films and taken with a hand camera, facts which to some people conclusively prove the causes for bad work, but in reality the causes must be sought elsewhere, and we shall consider them in due course.

What is a negative? It is, speaking generally, an image in silver on a transparent support, in which the relations between light and shade of the object photographed are usually inverted, and the elements which go to its productions are the most wonderful and entrancing of phenomena; in fact, most of us have so much enjoyment in making negatives that we often fail to get beyond that stage. I am sure there are many hearing me tonight who have hundreds of negatives of quite excellent quality which have never yet been printed. Personally, I quite envy the beginner in photography the joy of developing his first plate, to see the gradual growth of the image in the developer, his anxiety about how far to carry the operation, and the pleasure with which he hails a probably under-developed result when it is removed from the fixing bath. None of these operations have ever lost their charm and interest for me, and I must confess that the modern methods of developing tanks, useful as they are, seem to remove the personal touch which gives the subject such undying interest.

"Practically there are No Bad Plates."

Thanks to unrestricted competition the manufacture of the modern dry plate has been brought to such a pitch of perfection that practically there are no bad plates. All of us have our favorite brands whose characteristics suit our own particular manner of working or our favorite developer. Some prefer a plate with a short range of gradation, others demand one with a long range of gradation; some say that perfection can only be obtained with a slow plate—these are generally the plate-makers, who find them easier to make—and others cannot get a plate sufficiently rapid for their work. Then again there are those who must have color-correct values, and others who think that possibly greater truth of effect can be obtained with a plate that emphasizes color contrast rather than reproduces exact values in monochrome. For all these diverging interests plates are made, and the perfect technician can get good negatives on them all, although possibly not of the nature demanded for his special work.

You all know the commercial plate with its creamy surface, looking not a whit different after exposure than when placed in the camera. It always seems remarkable that light for a fraction of a second should so upset the condition of the silver that it is amendable to chemical influence in a varying degree.

In dealing with this subject it is necessary to consider the instruments used for making negatives, for much glass or film is wasted by imperfect tools.

How Light may Leak into the Camera.

As for the camera, any box or chamber that does not admit light to the plate except during the moment of exposure and through the lens will suffice for our purpose. Every photographer fancies he is working with such an instrument, but a large percentage are far from perfect; an actual maker of cameras is the only man who knows how difficult it is to make a camera light-tight. We learn that

light travels in straight lines, and are apt to forget that it will go round many corners, all, of course, due to reflection. In the first case it may quite conceivably find entrance at the lens flange. The flange may be screwed carefully on the camera and may be recessed, but the best wood in the world will warp and get out of plane, and then the camera front which was safe last year causes trouble when taken out for a new season's work. Then the velveting of the rising front may wear, and light again finds its way into the instrument. A fruitful source of trouble will also be found with old slides that are out of plane and do not fit tightly against the back of the camera, and the fronts of changing boxes are equally liable to this defect. Celluloid shutters at the front of dark slides, if more durable than common vulcanite, are cheaper than good vulcanite, and particularly liable to give trouble. They get out of shape and keep valves open, they shrink, and don't fill the orifice in the slides. Test your camera carefully each spring by putting an electric light inside it in a dark-room and see if any light can be seen, after waiting for a few minutes.

Apart from light affecting the plates through imperfect dark slides, trouble is sometimes caused by emanations from the wood itself, and this may be greatly minimized, if not entirely prevented, by using a celluloid black for the inside of the slides. Without this protection, I fancy that, quite apart from any natural and prejudicial attributes in the wood, the oil used for French polishing may itself be the cause of the trouble, not that it directly reaches the plates, but the emanations from it gradually pass through the pores of the wood and thus affect the sensitive plate. The celluloid varnish fills the pores of the wood and tends to obviate the trouble.

One other warning on the matter of light must be given. Some makes of folding cameras are fitted with shutters, the blades of which are of thin vulcanite. These are sufficient for all practical purposes, but care should be taken not to carry the camera with the sun shining on the shutter while it is in close proximity to the plate or film. Many spoiled films are due to this cause. No trouble is caused if the camera front is kept extended.

So much for the camera. We need not discuss details of construction of the host of models now on the market, but I would submit that simplicity is desirable, and that it should be light-tight is essential. Nor will we discuss lenses. Some prefer anastigmats and others lean toward diffusion of focus; all the various points advertised by the makers have enthusiastic advocates, and, providing we have a lens without "flare," with the diaphragms properly marked, all may suit our turn.

Shutters and Shutter Speeds.

Shutters, however, are a more important matter, and I must confess to a feeling of disbelief in the speeds marked on them, and in this defect the largest makers are the biggest offenders. Why shutters should be deliberately marked with fictitious speeds is a matter past my comprehension, and must have the strongest condemnation. If a lens maker marked his lens $f/5.6$, and gave us one working at $f/8$, we should have something to say, but the shutter, which is equally important, is fitted with a dial which tells us a frigid, and quite unconscious, lie whenever we consult it. I am sure it would not be to the disadvantage of makers to engrave speeds, say, within 25 per cent. of accuracy. As things are, whenever we are told that a particular photograph was taken

in a certain fraction of a second, we are given no real information, for our informant might as well say "in the twinkling of an eye."

Now let us to the dark-room. Most dark-rooms are too dark or too light. The ideal room shuts out all white light and has plenty of safe light—*i. e.*, safe for the particular plate that is being developed. My preference in the way of illumination is a large lamp with a diffusing safe light, and which can be altered for various kinds of plates or papers. Each has his own preference on such matters, but it is very desirable in any case to use artificial light, and not daylight passing through colored media. Daylight is most uncertain, as its intensity alters from moment to moment.

Plates vs. Films.

Let us now consider the question of plates and films. For perfect negatives plates are undoubtedly the best. I quite admit the value of films to a large, and one of the most deserving classes of the community, namely, the makers and vendors of cameras, for not only do these worthy people sell their cameras and films, but more often than not "do the rest," to their joy and contentment in life. While anxious not to say anything which would diminish the income of the photographic supplier, yet I must affirm that films have not the same average quality of plates. The reason for this is at present a mystery. An emulsion coated on celluloid has not the same life as has the same emulsion on plates. I put forward a theory for films which may possibly be worthy of attention. Every one who has used celluloid films is aware of the frequency with which they show evidence of electric action, particularly in dry weather. I remember on one occasion making a journey down the Adriatic in a hot and dry season, and on that occasion had films packed in tins. It was difficult to get a film out of the tin without a flash of light, and only by withdrawing them very slowly and breathing at the same time on the surface to moisten them was I enabled to obviate this trouble. My theory is that the tension between the gelatine and celluloid causes electrical action. Generally speaking, this is latent, but if prolonged it may quite conceivably upset the inertia of the film in the same way as light, and consequently produces fog on development. Of course, films must sometimes be used by travellers where plates are an impossibility, but for very hot or very cold climates I have often said that, weight for weight, a traveller will do better with plates than films—a pretty bold assertion, but the correctness of which I have learned from experience. In temperate climates fresh films may be used when plates cannot be procured, and, of course, much excellent film is made. This society has on two occasions given me a medal for photographs, the originals of which were taken on films. Perhaps this is no recommendation, for it is frequently stated that only indifferent work gets approval from judges.

Use the Fastest Plate you can get.

Then as to plates. This depends on the work to be done. We should naturally not use a rapid plate for copying a map or a process plate for taking a landscape. Outside of such limits I should say, for all general photography, use the very fastest plate obtainable, providing the speed is not obtained at the expense of fog. Makers will often tell you how to use slow plates, but this is only because they cannot so easily make good ultra

rapid ones. A rapid plate with a long scale of gradation is the best for portraits, architecture, and landscapes. As to whether the plate should be orthochromatic, this is a matter for individual opinion, but I must confess that I am heterodox in this matter. For those who like the results obtained with orthochromatic plates, then those are the plates they should use. My vote goes for the ordinary brands, excepting for certain special subjects.

Exposers—and Photographers.

Having each suited ourselves according to our various idiosyncrasies, with camera, lens shutter, and plate or film, we must consider the matter of exposure. Camera users may be divided roughly into three classes—those who give too much, and those who give too little, exposure, and between these is a small and comparatively elect body who may be termed photographers. The man who over-exposes is gradually dying out. He was very prevalent some years ago, and said, generally with pride, that he was a worker in the old collodion days. He expatiated on his days with a perambulator and dark tent, and his worries with the silver bath. Quite an honorable and pathetic figure, but he usually failed to recognize that the new era was speedier than the old, and his work suffered greatly in consequence. The too little exposure class is the largest one to-day. It consists mainly of those who never will be photographers. They insist "they have a camera with an 'instantaneous lens,'" and, therefore, willy nilly all their bad results are due to the ignorance or culpable carelessness of the man who develops their plates or films. Such people are very hopeless, and won't learn. If they use Kodaks, they ignore their Kodak manual; they won't take any hints from a dealer who supplies them, and I remember one of the genus lecturing me on the absurdity of my remarking that he had shaken his camera while making his exposures. Such a thing was absurd, for was not his camera fitted with what he termed an "instantaneous lens?"

But the smallest class, who are recruited from such of the other two classes as have mental capacity of learning, know that "exposure" is the crux of the game. They do not ignore the time of day or month, light values, altitude, latitude, color, tone, and distance of object, but inform themselves of all these different influences which modify exposure, nor are they disposed to condemn such adjuncts as actinometers or exposure meters, which are of the greatest value till experience is assured. And I would put in a word about exposure meters. With such instruments as those of Watkins or Wynne many workers find difficulty in trying to match the tints of the sensitive paper, as it darkens with the fixed tints on the meter. This is obviated by not trying to match the color, but only the depth of tint, and screwing up the eyes so that the color is not so distinctly seen is a great help in this direction. I should myself prefer approximately about one-half of the exposure shown by the meter when using the makers' table of plate speeds, for, as a rule, the meters give the maximum exposures permissible for clean and brilliant negatives.

The Common Hand-Camera Failures.

Now that most of the best photographic work—as well as perhaps the worst—is done with hand-cameras, it may be well to state the many causes

of defective work. I should place them in the following order:

1. Not holding the camera steady during exposure.
2. Using too fast a shutter.
3. Misjudging the distance of the object.

I have often insisted that to hold the camera steady during exposure is "the golden rule in photography." Camera users fail to remember that the rate at which they press the shutter release does not in any way govern the speed of the shutter. More negatives are spoiled through not holding hand-cameras steady than from any other cause.

Under-exposure is a prevalent complaint with hand-camera negatives. Photographers won't realize that for general work anything beyond a real one thirty-second is quite unnecessary, and much work with figures can be done at one-eighth, and even one-quarter of a second. In fact, exposures of one-half to one thirty-second are perhaps the most useful for general hand-camera work; consequently I prefer a diaphragm shutter to one of the focal plane variety.

Judging Distances.

Regarding defective negatives obtained from misuse of the focussing scale, these might often be prevented if hand-camera makers would scale their cameras in yards instead of feet. Most hand cameras have distances such as 8, 10, 15, 25, and 50 feet engraved on the scales. Apart from the 15 feet, none of these are a definite number of yards. With such distances as 2, 3, 4, 6, 8, 12, and infinity on the scale, we may reckon the same number of paces, and after a few trials these distances can be very correctly estimated. My own method is as follows: Supposing I want to take some figures coming down a street, I decide perhaps on a spot in the road or pavement which I intend they shall reach before the camera comes into action. I focus my camera to the estimated distance on the scale—and if there is any doubt as to the distance it is easy to pace from it to the position selected with sufficient accuracy for good work, and continue holding the camera at my side or behind my back till the group get fairly near. Then, rapidly bringing the camera to level, I sight my object in an accurate view finder, and, if the composition is correct, release the shutter. It is all done so rapidly that the unconscious victims don't realize that a photograph has been taken. When they have passed by I change the plate. You will notice that I don't change the plate till my subjects have passed on their way. It is advisable, in the interests of photographers who may come afterward, that we don't dance in triumph on having bagged our prey. People are inquisitive enough as it is without having their imaginations excited by the thought that they may appear on postcards in a local stationer's window, and I consider it an essential that my subjects may be quite unconscious of their doom. I have frequently photographed people at one yard distance quite unbeknown to them. Much may be done when lighting a pipe and appearing abstracted by the beauty of the scene. In such matters the male sex have great advantages, and consequently the very fine work being done by many ladies with the hand camera is worthy of the higher praise.

Screen the Lens.

One other cause for defective negatives at this stage may be noted. Captain Owen Wheeler, in particular, has pointed out the importance of a lens

hood in telephoto work in order to cut off extraneous light reflected from the bellows inside the camera, and also inside the lens tube, which greatly impairs the brilliancy of the image. Professional photographers in the studio have never been unmindful of lens shades as aids to technical quality. Such an addition is of the greatest value to the outdoor photographer, more especially when he wishes to get *contre jour* effects, in which the sun may shine directly on the lens and cause flare, apart from other troubles. Collapsible lens hoods are now things of everyday commerce, and, failing them, many fogged negatives may be prevented by wearing broad-brimmed hats, and bending the head so low that the sun is just prevented from striking the lens.

An old adage says, "First catch your hare and then cook him," and, so far, we have dealt with the "catching of the hare," the really essential thing on which all else depends. For the rest, the development of our plate will be according to individual requirements, and if we have given the correct exposure and eliminated such causes of failure as I have mentioned, we shall certainly get a negative which will give a good print in one process or another.

I have developed many thousands of photographic plates, and yet never look on a dry plate without thinking what a wonderful thing it is. To all appearance it has not changed by exposure in the camera. What exactly happens when light for a fractional part of a second reaches it, is, I believe, a matter of controversy. We do know, however, that where light has reached the plate, the silver and bromine, being joined in their gelatine home, have had such a shock that they only hold together unwillingly. When bromine finds her affinity in certain other substances, she leaves silver, who is utterly cast down by this desertion, and probably wears black for the remainder of his days.

Such is the action of devlopment, and all developers are agents which reduce the silver in the film to a metallic state.

Development for the Print.

In development, however, it is clearly necessary to keep the printing process in mind. For bromide enlargements we want clean negatives of delicate gradation, while for platinotypes or carbon, a much stronger result is imperative if we wish to take full advantage of the range, from black to white, possible in prints by these processes. Should we be copying line subjects on process plates, then, naturally, our negative must be as strong in contrast as possible, quite irrespective of the printing method. Personally, for my own style of work, I prefer pyrogallol, and with a 10 per cent. solution of pyro and 20 per cent. solution of carbonate of soda we have a developer which will fill the requirements of the average man, at least, so far as his negative-making is concerned. Whatever developer is used, the importance of temperature on chemical action must be borne in mind, and a temperature of 65° to 70° is desirable; in fact, some developers won't work at less than 60° F.

The question of dish or tank development naturally arises, and, so far as roll films are concerned, I should strongly advise the tank working at a given temperature for a given time. A better average of results is obtained in this fashion. Films are not given to run to density, and for miscellaneous exposures a standard time will be found more reliable than working on the factorial system of Watkins—

admirable as it is when the correct exposures have been given. It is in cases of over-exposure that the Watkins factorial system fails, for then the image makes its appearance quickly, but it is necessary to continue development quite as long as we should for normal exposures if we wish to get a printable negative.

Working with plates, I prefer a dish, because of the pleasure obtained from watching the process, although, of course, this is not possible with panchromatic plates. It will be found that some plates tend naturally to great contrast. For those we use a developer weak in the reducing agent; and, indeed, for such plates a developer like metol, which gives detail first and density last, may be desirable providing the operator can use it without injurious physical effect. I am myself so sensitive to this chemical that almost to look at a bottle will bring out an eruption.

Other plates have a long scale of gradation and want a developer strong in the reducing agent to give great density.

Use Backed Plates.

Always use backed plates if you want the best results, even for lantern slide making, and disregard the makers' instructions to remove the backing before development. It certainly comes off in the developer, at least some of it does, and the remainder gets into such a condition that it is readily removed by a stiff brush at such a time as we wish to examine the plates. Most plates require to be developed till the image begins to show through the back of the plate. Should the dark-room light be a safe one, and any appreciable amount of fog begin to form on the rebate of the plate before development is complete, then a developer should be used containing a small amount of bromide, say half a grain to each ounce; but it is better not to use bromide unless absolutely necessary. For small plates a clip of some sort or another will be found a great convenience, and save the fingers from coming into contact with the liquid.

The Acid Fixing Bath.

The plate being developed, give it a slight rinse and then transfer to an acid fixing bath for preference. If this acid bath is made with metabisulphite of potash or soda, say, one ounce to each twenty ounces of hypo solution, there will be no danger of sulphur being deposited on the film, and such a bath at once stops development and clears and hardens the film. If a plain hypo bath is used the negative should be more thoroughly washed before insertion in the solution, or the hypo may tend to oxydize the reducing agent and thus discolor the film. Moreover, greater care must be exercised with this plain bath before admitting any white light till fixing is complete, particularly if the developer has not been properly eliminated from the film, for development may continue and cause uneven results. Fix thoroughly to dissolve certain invisible silver salts, as well as the visible ones, and after washing sponge the surface of the plate with absorbent cotton, to remove any deposit from the water.

Enlarged Negatives.

So much for direct negatives, and perhaps a word on enlarged ones may not be out of place. For this purpose I prefer to make a carbon transparency, because by means of this process every gradation in the original negative can

be absolutely rendered. Of course, in the case of very thin negatives it might be desirable to make a transparency on a plate which would alter the scale of gradation; but, generally speaking, if we get the transparency of the same gradation as the original negative we may modify the scale of the enlarged negative by choosing the grade of plate, or exposure, or developer. From the transparency the enlarged negative may be made by artificial light or daylight. One word of guidance is desirable here, and I would particularly mention it because of a statement I read a short time since in an excellent and usually most well-informed photographic journal. The writer was discussing the subject of enlarging, and stated that certain dealers in photographic supplies, for reasons which he could not fathom, had been insisting upon the advisability of ground glass between light and condenser in enlarging lanterns, and gave it as his opinion that such a reduction in the value of the illuminant was quite unnecessary. I was at the time too lazy or too busy, I forget which, to dispute the writer's contention, but it was evident that he had never tried to make an enlarged negative from a carbon transparency in an enlarging lantern. The ground glass is essential in order that a diffused light may pass through the condenser and transparency, for if the light comes from one point, curious defects, due to refraction from the varying thickness of gelatine which go to form the image, make themselves very strongly marked on the enlarged negative. Moreover, every scratch, pinhole, or minor defect in the transparency is greatly accentuated if the naked light is used.

Such are the elements of negative-making from the point of view of the practitioner. The science and mathematics of the processes involved may quite well be raised on these foundations by those who follow after.

FROM MY POINT OF VIEW.

A Few Words about the National Convention at Milwaukee, July 11 to 16, 1910.

It has frequently occurred to me, that were it a physical and financial possibility for me to make a personal call on every studio in the country, I would so be able to work upon the good sense of my hearers and so show the unbounded possibilities for improvement along all lines of one's business by attendance at a national convention, that even the large halls that we have this year at our disposal would be altogether too small to hold the crowd that would gather. But the personal call, the friendly visit is an impossibility. It would task the patience and strength of a regimental company, and for a single man the wish must remain a dream. But, if I can't call on you in person, we can at heart "visit" through the medium of the magazines, and if, when you have read this, you will close your eyes for a few minutes and conjure up before your mind the mental picture you have of me, then it will be almost as if we were face to face, and this dream "visit" be almost true, after all.

I have a "hobby." I am not ashamed to admit it, either. Many a much better

man than I has ridden a "hobby," and mine is a harmless one. It's nothing more than an intense desire to see every professional photographer in America at Milwaukee the week of July beginning the eleventh.

That's my "hobby," and with it you have the point of this talk to you.

Now, mind you, I am not suggesting that you should go to Milwaukee that week to oblige me, or just because it happens that I am president of the P. A. of A. for the time being and therefore want to see a big crowd.

I have been a member of the P. A. of A. for a great many years, and for nine years have taken active part in its management. In all those years, just one thing has impressed me with greater force each succeeding year, and that is, that I have never yet felt able to afford to stay away, merely from a business point of view.

Do you catch that? Here's another way of putting it. I have noticed that the men who have climbed, who have made success of themselves and their business, are men who have frequented conventions, seen the work of other and older men, gone into competition with them, rubbed shoulders with them, and swapped experiences with them. I could point to dozens of instances, in my own limited acquaintances, of men who had started in the portraiture business, and who had nearly lost heart through ignorance of the possibilities, and lacking the incentive of decent competition and brotherly sympathy, but who have swung into the right direction and laid the foundation of permanent success through attendance at a State or national convention.

After all, if a convention of photographers brings nothing further to a man than the opportunity to see how much further his fellow-men have progressed than he has, and the chance to learn that mere picture-making for a few dollars a dozen is not the whole aim and end of his photographic existence, then attendance at a convention is amply repaid. But a convention, and especially such an one as we will have in Milwaukee this coming July, brings much more to the visitor than just abstract ideas. It is full of practical knowledge for the man who comes with a ready mind and an open ear. He not only can see the progress made in his chosen profession by the splendid exhibits, but he is given opportunity to actually learn by practical demonstration just how this "progress" is accomplished. He sees portraits on the walls with all the exquisite tone and elegance of the old master portraits he has occasionally glimpsed in museums, and he is shown just how to light his sitters so as to get those tones, and then he is taught how to work-in his backgrounds and finish his prints so as to get all that elegance into his own pictures The man I am talking of, and he may be you, may be ever so ardent a photographer, ever so faithful a reader of the journals, and yet he may never catch up with the world's onward march unless he actually comes in contact with the men who make progress and who make it by coming in contact with other workers, each adding his portion and passing it along.

Just how full of practical knowledge this Milwaukee Convention is going to be, will be clear from the following brief particulars:

Let me put in the first place, the exhibition of pictures. Pictures we all make, and we all want to see what the other fellow has done lately. Maybe we are "stuck" on our work. The chances are that we are "stuck" in a rut and don't know it. Many a man has come to me at convention time and said, "By jove, but I thought I was going way ahead all this time, and I have just seen that I'm a back number in ideas." These convention exhibitions give me a

severe jolt at times, but the comparison of your work with that of others will more than repay you for all the money you have spent on the trip to Milwaukee. And this year the exhibition will be greater in scope and better arranged than ever before. Imagine hundreds and hundreds of pictures hung on the vision line, in a hall specially built for the correct display and lighting of pictures. And the "vision line" means that your eyes rest naturally on the pictures, no straining upwards or bending down to look.

It is going to be an exhibition you'll remember for a good many years to come, and recall in later years when you are breaking your back to get a view at a picture you have taken a fancy for.

After the exhibition, I place the Schools of Photography. The Milwaukee visitor is singularly fortunate, for he has two schools to choose from, or he may attend both and gain practical knowledge from both. That master photographer, Commodore Steffens, of Chicago, is going to construct a complete studio, and run it with his own staff of assistants. It will be an artificial light studio, and the sittings will be made under a lamp of the Commodore's own construction. Mr. Steffens believes in artificial light as the light of the future for portrait-making, and he backs his belief by showing you his methods. The negatives he makes (and he'll have the assistance of some of the leading men of the country) will be retouched, printed up, and the prints finished and delivered at each session. A complete course in high-class studio procedure—that's what it will be.

Could you buy that complete course from Mr. Steffens for any money you possess? Most probably not, and yet you get it for the couple of dollars' dues you pay the Association—not counting the exhibition and all the other things!

Then the other School. That will be a daylight school. Ryland W. Phillips, who conducted the school last year, will again have charge and with him will be Dudley Hoyt, William Shewell Ellis, and Endean. The fact that these men have been chosen after the most careful deliberation is a guarantee of their cleverness and skilfulness as instructors. As portraitists they have few if any superiors. Each has his special methods and each will work under the skylight with a model for the three days that the school is in progress. The work they do will be shown on the walls so that all may see and have the lesson. The instruction does not stop here, for Mr. Phillips will show you then how to work the modern background into the negative or print. A special projecting lantern has been made for us which will show on a screen every movement and stroke that Mr. Phillips makes while putting in the background.

He will go further, for in another lecture he will take pictures from the walls of the exhibition hall and make lantern slides showing the improvements he would suggest in that picture. That is instructive criticism of the most practical kind, and so done that every one can take advantage of the lesson. Having then a most practical course in modern portrait-making, the selling picture comes into prominence, and Mr. Arthur Sheldon, who conducts the famous Sheldon School of Salesmanship, will tell you the theory of successful salesmanship, and will put thoughts into your head that will make you rejoice to have heard him. You will go home saying, "I would not have missed Sheldon's lecture for a hundred dollars," and it is going to be worth thousands of dollars to you, if you will heed the lesson he has to give you.

And then Mr. J. C. Abel, the man who writes and originates and edits journals will tell you how to go about attracting

business to your studio through the use of ink and paper and ideas, and will show you, too, what good advertising is as compared with poor advertising. And that you may know where you stand, after all, as an artist in the estimation of your fellow-men, Mr. George Stevens, director of the Toledo Museum of Art, will talk to you on "The Place of Photography in Art." Mr. Stevens is a skilful art critic and an enthusiast on the capabilities of photography. Added to this he is a splendid speaker with a fund of good humor. Can you beat the combination?

Besides, the Women's Federation will have an art critic and speaker, and the finest exhibit of women's work in photography ever shown in America.

Their art speaker will be a woman of national reputation, the best that can be procured, who will present to you ideas on picture-making that you cannot fail to benefit by.

Having told you this much, it seems almost vain to tell you that a local Milwaukee committee has arranged an entertainment program which includes receptions, theatre parties, lake rides, amusement parks, a concert by photographers, and,—well what's the use. I could go on telling you, but surely I have told enough. If my "visit" has not shown you by this time that attendance at the Milwaukee Convention is not so much a matter of consideration as of necessity, not so much a matter of expense as of business expenditure (two totally different things); if I haven't already persuaded you to go to Milwaukee, whatever happens, then no amount of further argument will get you started, so I'll close my "visit" with a handshake and a "Meet you again at Milwaukee in July."

Cordially,

A. T. PROCTOR,
President P. A. of A.

Temporary Dishes. If a dish is wanted unexpectedly one can often be extemporized out of the lid of a plate box or other similar thing, which will answer for a temporary purpose perfectly. It should be given one or two coats of probus, one coat being sufficient if it is not to hold liquid for more than an hour or two. A very good job can be made of it by first giving the interior a painting over with strong glue, to which a little potassium bichromate solution has been added. Two or three drops of 10 per cent. solution will be enough for a gluepotful. When thoroughly dry, after being freely exposed to daylight for an hour or two, the dish may be coated with Brunswick black. The glue not only renders it much less pervious to moisture, but it stiffens the cardboard considerably.

Measuring Glasses. Two forms of measuring glass figure in dealers' catalogues—the conical, which run down to a point at the bottom, and the cylindrical, which have parallel sides. If one measure is to be used for all purposes, the conical is the better of the two, because the smaller the quantity the greater the accuracy with which measurements can be made with it. But except in such a case, the cylindrical measures are always to be preferred. It is with them easy to measure with accuracy any quantity which is marked on the straight part of their sides—much easier, in fact, than with the conical, especially when the measure is nearly full. An advantage which is even greater than this is the ease with which they can be cleaned. It is often difficult to get the last little speck of dirt out of the point of a conical measure. A measure graduated up to 120 minims, another up to 2 ounces, and a third up to 20 ounces are all the photographer is likely to want.

President A. T. PROCTOR
Photographers' Association of America

By J. H. GARO, Boston, Mass.

By Bradley Studios, New York, N. Y.

By New Photographic Company, Berlin

Two-figure Groups

Three-figure Groups

1. Self Portrait
2. Low Mass
3. Girls on the Stairway
4. Old Men's Hospital

Illustrating Sidney Allan's Article

5. Old Couple
6. The Music Lesson
7. Mrs. S. and Children
8. The Pet Dog

Illustrating Sidney Allan's Article

9. After Dinner Hour

10. Evening Party in Studio

Illustrating Sidney Allan's Article

MASTERS IN PORTRAITURE—LUCIEN SIMON.

BY SIDNEY ALLAN.

LUCIEN SIMON is one of the "younger painters" of France. In any other profession a man is not considered exactly young any more when he approaches the age of fifty, but in painting a different standard seems to be applied. Simon belongs to the later realistic school, that followed Monet and his class, and as its popularity dates back to a few years, the definition "young" is quite appropriate. Simon has been unusually successful—that is, more than a dozen of his large canvasses have found their way into prominent museums all over Europe. One of his masterpieces, "Evening Party in a Studio" (Fig. 10), was purchased by the Pittsburg Art Gallery, and is one of the main attractions of the Gallery. Simon is what is called professionally a "museum painter;" that is, his immense canvasses are seen to better advantage in a public exhibition hall than any private mansion.

He is principally known as a painter of Brittany peasant life, of portraits, and of life-size portrait groups. The latter is his specialty, and he owes his reputation largely to such remarkable performances as Figs. 2, 4, 9, and 10; and it is for this reason that I am including him in this series, as the painting of life-size groups is a rare achievement in these days of single-figure studies. He rarely paints the portrait of a single man or woman. It does not seem to interest him. He always needs from two to four or five pictures to express himself. His technique is noteworthy for accuracy of drawing and breadth of brushstroke. In his Fig. 10 I have noticed brushstrokes several inches wide and at least one foot long. Everybody who paints will realize at once what marvellous knowledge of form and sureness of touch are necessary to work in this vigorous, unconventional manner.

Fig. 1, a "Self-Portrait," is a fine piece of characterization. The expression of the face and the hands and the easy, natural attitude of the body convince us that it is a reliable portrait. We see a personality before us. No matter whether he is a painter or not, we realize that he is a thinker, a keen observer, a man with a subtle and nervous temperament. That all good portraitures should do. We ought to be able to read into the character of the sitter.

The light arrangement—in particular of the head, throwing a transparent shadow and allowing the shoulder to be outlined in light—is masterly. But the principal effect of this picture is due to the introduction of the shirt. I often wondered why it has not been used more frequently. It offers such a wonderful opportunity for contrast. The management of folds is particularly noteworthy.

The "Little Girls on the Stairway," Fig. 3, is an experiment in home portraiture. The composition is unusual, but fairly good in its line arrangement. Of course, it will be difficult at times to find an interior that is equally light and picturesque. But I do not think that anything was gained by showing the cross-beams and the window through the door opening. If there had been a door, the effect would have been simpler, and a staircase and old clock and white woodwork and dark stair steps, no doubt, can be found in many old homesteads. The larger figure is beautifully posed. It is a strictly childish attitude, that depicts a

momentary mood without spoiling the chance for a good likeness. The smaller girl is too much in the shade for portraiture, and it seems to me that it could have easily been remedied by emphasizing the outlines of the figure by some reflected light from the back. There is also no reason why more light could not have come from the front. The painter probably felt that he needed a large dark mass to balance the unusual amount of light planes throughout the picture.

A rather ordinary composition is offered in "The Violin Lesson," Fig. 6. The figure is placed too low in the canvas, the lower part is too dark, and there are too many accessories. The rectangular division of light and shade is not bad, but it neglects the figure, and the violin, covered in part by the shoulder and forearm at the elbow, in awkward foreshortening, is poorly placed.

Also, Fig. 8, "The Pet Dog," has nothing of Simon's usual breadth of treatment. It must be one of his earlier works. It is a peculiar composition. It reminds of the pre-Raphaelites. Notice the severity of line and the abundance of detail.

Figs. 5 and 7, the "Old Couple," and "Mrs. S. and Her Children," on the other hand, show the painter at his best. The two figures in Fig. 5 express sentiment without any special effect. There is nothing unusual in their attitude; they sit as old people would sit after talking to each other or listening to some visitor. The parti-color effect, I believe, can be traced back to the old-fashioned sofa, the pattern of the wall paper, and the daguerreotypes and frames on the wall. They produce the atmosphere. The arrangement of the heads and hands in the shape of a pentagon is exceedingly clever. The composition in Fig. 7 depends largely on textural effects and the balancing of vertical and diagonal lines. The mother and the little girl and the armchair represent diagonal lines; the other girl, the boy, and the lines of the background have a vertical tendency. Something like this has to be done if one has to put four figures together into a group, and wants to show them in clear outlines. The textural treatment helps considerably. The effect of the mother's dress is repeated in the armchair, the white dresses of the girls are away from the centre of attraction and are well balanced by the dark notes of the boy's suit, the frame, bracket, cushion, and black stockings of the seated girl.

We now come to the group pictures. In Fig. 9, the "After-Dinner Hour," we have five figures; in Fig. 10 not less than eleven; the same number may be counted in the "Old Men's Hospital," Fig. 4, and the "Low Mass," Fig. 2 (at the Chicago Art Institute) shows even more. They are all groups that *might* occur in professional portraiture.

Fig. 2 represents a bold experiment of showing a row of heads against a light background. This necessitates particular care in the arrangement of the headline. The painter solved the problem; the line flows on easily; it is restful and yet shows a large variety in its curves, angles, and undulations. The division of the entire picture into four large planes is excellent. There is the dark stretch of the bodies, vaguely broken up here and there by a face, a hand, or cuff. Then the face in middle tints with a few brilliant highlights on the collars; and, finally, the light planes of the balustrade and the interior of the church, balancing each other.

The "Old Men's Hospital," Fig. 4, shows great skill in grouping. It is not exactly a portrait group, but out of the eleven faces seven are plainly seen. To place a row of men in a diagonal line across the picture is a sensible and picturesque way of solving the problem. The inmates of an institution seated in an interior can really be treated in no

other manner. A straight row facing the spectator will always look monotonous, and the circular grouping would be possible only to standing figures. Of course, one could divide them into different groups, but two or three groups in a picture no longer form one group. Simon's figures are all linked together. Look at Fig. 10. I do not remember of ever having seen a group of eleven people that were represented in such a natural and animated fashion and at the same time formed such a compact mass without any division into separate shapes. In this composition there are no separate groups; one shape, so to speak, flows into the other. How did the painter accomplish this? I think not so much either by lighting or by line, but largely by spotting, by a skilful juxtaposition of light and dark planes.

Fig. 2, as previously remarked, is a plane arrangement, while Figs. 4 as well as 10 I would classify as spot arrangements. The background in Fig. 10 is a trifle sullen, but it no doubt needed variation to balance the richness of the planes in the figures. The dress suits of the men were used as backgrounds to silhouette the standing figures of the women and the two little girls. A clever feat, indeed!

Fig. 9 is a very pleasing picture. To the painter it represented, above all else, a light problem—the counteraction of candlelight and the evening sky outside. As a monochrome, it is a good example of space division. There are, broadly speaking, only two large masses; one of them, the table and figures, light; and the other, the background, dark.

All these pictures teach us that the most important factor in group composition is breadth of treatment; or, in other words, simplicity in the selection of the underlying geometrical shapes. Divide the area of your picture either by light values or textural effects into two or three large planes, and then introduce the figures by skillful spot arrangements so that all the minor planes and shapes will balance each other.

SMALL CAMERAS FOR SERIOUS WORK.

A FEATURE of the last few years has been the increasing popularity of the small camera among serious workers who have only very slowly arrived at a full appreciation of its possibilities and general usefulness, remarks a writer in *Photo-Notes*. At first it was looked upon merely as a toy suitable for the young amateur, and this impression was doubtless fostered by early experiences of the small cameras that were available some few years ago. Our very first experience of making a photograph was gained in endeavoring to get a passable result from a little tin camera that was advertised and boomed very strongly, and had an enormous sale for an extremely brief period of time. It was absolutely useless and so discouraging that we did not again attempt to use any similar type of camera for a very long time. Doubtless many others were prejudiced in a similar fashion and so the small camera proper has been a long time coming into its own.

Today we have a large choice of small cameras at prices varying from a few dollars up to as far as you like to go, and all are capable of rendering good service. A great many workers, have, however, even yet failed to realize all the possibilities of these instruments. Nearly all the most popular printing methods of today involve enlargement—either the

production of an enlarged bromide print direct from the negative or of an enlarged negative—and this being the case, the exact size of the original negative is not of much consequence. The enlargement can be made just as readily from a $3\frac{1}{4} \times 4\frac{1}{4}$ as from a 4 x 5, and just as conveniently from a $2\frac{1}{2} \times 3\frac{1}{2}$ plate as from a $3\frac{1}{4} \times 4\frac{1}{4}$. The only difficulty that may be felt in the case of the smaller plate is that possibly the image will not stand the extra amount of magnification required. Suppose the ultimate result is to be a 10 x 12 enlargement, then a 4 x 5 image must be enlarged two and a half times, a $3\frac{1}{4} \times 4\frac{1}{4}$ three times, and a $2\frac{1}{2} \times 3\frac{1}{2}$ image about three and two-third times. These differences are not so very great, but it is obvious that if the $2\frac{1}{2} \times 3\frac{1}{2}$ image was made with an inferior lens to the quarter-plate image, then the enlargement is certian not to be so good as regards definition. If perfect definition is wanted in the enlargement, then the smaller camera must have a lens of the very best quality, and, as the smaller the camera the greater is the amount of enlargement required, the necessity for a good lens becomes more and more imperative as the size of the camera is reduced. In pictorial work such a high standard of definition may, of course, not be wanted, and then very excellent results can be obtained when the small negative is made with a moderately good lens, such as that supplied in the cheaper varieties of small cameras, and those who cannot afford the more expensive types of apparatus should remember that an R.R. or aplanat lens of good quality is capable of producing very fine results indeed. Quite as good as can be wished for in ordinary work, even though not equal to the results possible with a fine anastigmat, such as a Tessar, Cooke, or Goerz. After all, the main advantage of the anastigmat to the ordinary worker is its extra rapidity, which is of more importance to him than its power of giving extra fine definition. The R.R. cannot reasonably be expected to give good results at apertures larger than f-8, while some of the best anastigmats will give as good results as can be desired at f-4.5. Still, f-8 is large enough for most ordinary hand camera work if we leave out special subjects which require especially short exposure. With this aperture we cannot expect anything from exposures of one hundredth of a second excepting on the sea in fine weather, but as a matter of fact the most useful general exposure is from $\frac{1}{10}$ to $\frac{1}{30}$ second, and an f-8 lens is quite rapid enough if shorter exposures than $\frac{1}{30}$ are never employed. It should be remembered also that many shutters in common use will not give shorter exposures than about $\frac{1}{35}$ second, so with such shutters very large apertures cannot be used, even if available, unless the conditions of lighting, etc., are exceptionally bad.

We can now consider some of the peculiar advantages of the small camera. Owing to the fact that the small plate requires only a lens of very short focal length, some of the troubles that beset the 4 x 5 or larger plate workers are absent. Suppose we compare a 4 x 5 camera fitted with a six-inch lens, and a $2\frac{1}{2} \times 3\frac{1}{2}$ camera fitted with a four-inch lens, both lenses working at f-8. Let each camera be arranged at a "fixed focus," that is, let it be fixed at such an extension that as many different distances as possible are in sharp focus at once. With the smaller camera and the four-inch lens all objects beyond about nine feet from the camera right up to infinity will be in focus, but with the six-inch lens only objects beyond about twenty feet will be sharp. But in most subjects there is likely to be an important object somewhere between the distance of nine and twenty feet that we wish to secure in sharp focus, and while with the small camera we can with confidence fire away at fixed focus, with the larger camera we

must specially focus on this object to get it sharp. Or, again, suppose we want a sharp image of an object 8 feet away. We shall have to especially focus for this distance with each camera, and working by a scale to a distance that we can only estimate is an operation always liable to errors. In the case of the small camera we shall, however, secure that object in good focus if our adjustment is correct for any object between 6 and 15 feet away, whereas with the larger camera the adjustment must be correct for any object between 7 and 10 feet away. In other words, we have three times as much latitude with the four-inch lens as with the six-inch one, and so the chances of securing what we want are much greater. This latitude is due to what is called depth of field, which is greater with a short focus lens than with one of long focus.

PHOTOGRAPHY AS A MEANS OF ARTISTIC EXPRESSION.*

THE question as to whether photography is entitled to be considered one of the fine arts is, to my mind, a foolish one; but if it were asked whether photography might be utilized as a medium of artistic expression I would most unhesitatingly reply in the affirmative. It might be discussed whether sculpture or painting or architecture offered the widest scope for the expression of abstract beauty, but it would be admitted by all that each of these arts is peculiarly adapted for the expression of some particular æsthetic quality. Following this line of argument, I hope to be able to prove that photography is capable of expressing certain æsthetic emotions very completely. That its sphere is strictly limited I am quite prepared to admit, but I consider that it is still too young an art to have its scope determined. It has not yet had an opportunity of showing what it may accomplish, largely because it has been practised by the wrong class of persons. In its early days it was taken up as a hobby by those of a scientific turn of mind, who found in the process a pleasant outlet for the exercise of their chemical and physical knowledge, with the added charm that, as a result of their operations, they obtained pictures. It is not surprising that the accredited artists looked askance at these performances, and without very much consideration concluded that the process, being mechanical, was only capable of producing mechanical results. They reasoned that only by the medium of the human hand could the divine element of imagination be introduced into a picture; but, as a side light on the probable correctness of their conclusions, I may remind you that many of the same class were absolutely assured that Whistler was an impertinent charlatan. Times have changed, however, and the present generation is producing a new type of intelligence, which combines a cultured artistic sense with a capacity for chemical manipulation, with the result that there is gradually being evolved a new art craft which is called pictorial photography. That the progress of the movement is comparatively slow is not surprising when one considers that so far the productions of the movement have not achieved any commercial status, and consequently few men of genius have been willing to apply themselves seriously to an art which promises so little in return for their efforts. I make no complaint on this

* An abridgment of a paper read before the Edinburgh Photographic Society, by Mr. J. Craig Annan, of Glasgow.

score. One cannot expect the patron to anticipate the performance. The difficulties in the path of the would-be patron are obvious. By photography it is so easy to make a picture distinctly resembling a fine thing, and so comparatively easy to produce duplicate copies, that collectors are to be excused if they are chary in venturing into this new sphere of work. At the same time, I am convinced that we will never know the possibilities of pictorial photography until the reward of success is sufficient to attract the highest artistic talent into the arena of effort.

But even from the first there have not been wanting prophets who had the clearness of vision to see the possibilities of the new methods and the capacity to prove with considerable fulness the faith that was in them. The greatest of these, I am proud to say, was our fellow-countryman, David Octavius Hill, R. S. A., who spent three of the best years of his life in making a noble series of photographic portraits in a studio on the Calton Hill, Edinburgh. During the years 1843-4-5 he was so much engrossed in his photographic work that he scarcely put brush to canvas, but at the end of that period financial considerations compelled his return to his work as a painter. It is an interesting commentary on the comparative appreciation of his two methods of artistic expression that, whereas he is rarely remembered even by the members of the Academy of which he was for many years the honored secretary, there is no civilized country where his name is not revered by all students of pictorial photography as the first great executant of the craft.

I will now have much pleasure in submitting to you some of his portraits upon the screen, and I think you will agree with me that he possessed in great measure the power of seeing grandly. His compositions are of the noble order which only a great mind can conceive, and what is of special interest to us at present is, that he found his medium capable of expressing his noble thoughts. In a lantern slide it is only possible to exhibit certain qualities, such as the composition of line, the disposition of the masses, and the arrangement of the light and shade. Hill had not at his command the beautiful printing methods which are now available, though still rarely utilized, but I ask your attention to the fine qualities which his prints exhibit, and indeed, in the whole of my address I ask you to consider the possibilities which are suggested in the pictures I shall show you, more than the actual results which have so far been achieved. To my mind the art or craft is still in its infancy. Hill's work proves that it had a healthy birth. It has had but indifferent foster-mothers; but I think it is now emerging into a vigorous youth, especially among a small group of our transatlantic brethren, and I sincerely believe it has before it a virile manhood. I believe the influence of Whistler to have been the most potent cause of its recent development, and in this connection I have pleasure in showing you the only writing of the master on the subject—I took the liberty of presenting him with a few reproductions of Hill's portraits and you can read on the screen his reply:

110 Rue du Bac, Paris.

Dear Sir:

How very kind and nice of you to send me those most curiously attractive photographs—I should more simply say pictures, for they certainly are pictures, and very fine ones, too.

Pray accept my best thanks, for your present, and for the flattering thought that prompted it.

Very faithfully yours,

J. M'Neil Whistler.

May 26, 1893.

I have referred to the imagination as being the chief factor in the equipment

of the pictorial photographer, and you may ask what part imagination can play in a mechanical process. It appears to me that there are two kinds of æsthetic imagination: One which evolves a scheme of beauty from the inner consciousness and expresses itself in color schemes and compositions based upon, although sometimes distantly, the appearance of natural objects; and one which enables its possessor to observe the perfect schemes which nature occasionally provides, and which are capable of realization by means of apparatus and processes. The point I wish to emphasize is, that to produce the best possible work of art in photography it is essential that the worker should have artistic abilities of the highest order, or in other words a photographic picture cannot be of a higher order than the intelligence of the photographer.

The art of etching had a Rembrandt to exploit it in its early days, and I am convinced that the position of photography as a vehicle of artistic expression cannot be determined until it has been seriously practised by a master. Meantime, if I cannot show you the work of an absolute master, I hope to be able to show you in the series of slides which I have prepared, that something has already been accomplished.

The first is a self-portrait by Eduard Steichen, and the slide is a reproduction of what is termed a gum print. The peculiar quality of a gum print is, that at one stage of the process of production the print is in a soft state, somewhat analogous to a recently painted oil picture, and while it is in this state liberties may be taken with it by rubbing off portions of the semi-fluid picture. This process has been a very popular one with many workers during the last few years, owing to the facility which it affords to alter unsatisfactory details, but it is a method which is only safe in exceptionally competent hands, and I regret to say that many of its present-day votaries cannot be so characterized.

Interesting as these gum prints may be, I am rather inclined to believe that the most perfect work has been and will be done in pure photography, for the reason that by pure photography one may reproduce objects, with all their contours, tones, and modelling, with absolute fidelity. It follows that, if the photographer has the power to see the exquisitely beautiful in nature and is master of the technique of his craft, he has the power to reproduce on surfaces those qualities of form and tone in a more perfect way than is possible by any other method; but as soon as the hand is permitted to interfere in any way with the photograph, the automatic perfection is destroyed and the resulting hybrid picture must rely upon other qualities to justify its existence.

DRY-MOUNTING WITHOUT TISSUE OR MACHINE.

MOUNTING has always been the bane of my photographic existence, writes Mr. F. Weston in the *Photographic Monthly*. Many mountants are either too moist and cockle the mount, or too thick, so that by the time one-half of a large print is pasted over the other half is dry. After frantic energy, during which one's fingers and everything around one get nicely sticky, including often the face of the print itself, the picture is quickly pressed or squeegeed on to the first border mount and placed under the heaviest weight available, such

as a large book or sewing machine. This proceeding is gone through for each border mount until the whole is complete, when it is often found that some of the edges are not adhering properly. A little paste has then to be insinuated under the edge, a portion frequently being deposited on the print or mounts. Sometimes the print begins to come away in the middle, when one has either to put up with it or else float the print off in water and begin again.

For these reasons I always coveted the possession of a dry-mounting machine; but my pocket was not long enough to afford such an expensive trifle. I also noticed that even the lucky owners of these luxuries seemed to have some difficulty in trimming the tissue and prints or border mounts just right, as a little shiny edge often showed on one side or the other. I therefore combined several ideas that I gleaned from various sources and tried the following method, since when, comparatively speaking, I have got along quite happily.

Take ordinary shellac and dissolve it in wood alcohol, using just enough spirit to cover the shellac, adding more if necessary; but the solution must be as thick as possible. Before beginning operations, the bottle is stood in hot water until the mixture is nicely liquid. The print, which must be untrimmed, should be pinned face downward on a drawing-board, preferably with clean paper between. This avoids the necessity for holding the print while painting on the solution, and prevents any of the latter getting on to the face of the picture. The print should be untrimmed, so that there may be parts through which pins can be stuck without harm. A good coating of the solution should be given, but care should be taken not to get too thick a layer near the edges, as, when heated and pressed, a little may be squeezed out. As soon as the solution is dry, which will be after only a few minutes, the print can be trimmed in the usual way, either with a trimming knife or guillotine cutter. It should then be mounted on the first border mount, which should be larger all round than required, eventually to allow of its being pinned down in the same way as the print was in the first place.

To make the print adhere to the mount heat and pressure must be used. These are obtained by means of the simple household iron, which should be so hot that the hand cannot quite bear to touch it. The print is placed on the mount, covered with a sheet of blotting-paper, and the iron is pressed hard and worked round over it. If the heat and pressure are sufficient (the strength of a Sampson is not necessary), the print will be brought into perfect contact with the mount, which can then be coated and trimmed in the same way as the print; and so on for each mount until the whole is completed.

Should you find that you cannot judge the heat of the iron and that the blotting-paper sticks to the prints, you must take extra precautions. Instead of the blotting-paper use the oiled paper supplied for letter-copying presses, and for heating the irons employ the following method: Fill a baking tin with water and boil it on the kitchen fire or gas-stove. The irons should be placed in it on thin pieces of wood.

They will then be heated to 212°, the temperature of boiling water, beyond which they cannot go unless the sticks get displaced and the irons stand on the bottom of the tin, when of course they would get hotter than the water. They dry almost as soon as taken from the tin. The only drawback to this system is that the kitchen is soon filled with steam, which may bring upon you the wrath of the domestic authorities, unless they can be inveigled into joining in the proceedings. In my own case, my wife, fortunately, is as ardent a photographer as myself.

Care should be taken that no water remains on the top of the iron when using it, as if any gets spilt on the oiled paper or print the results will be disastrous.

Should proper adhesion not be effected, although sufficient heat and pressure have been applied, you will probably find that the solution is too thin, or that the mounts are damp. They should be absolutely bone dry. If several border mounts are used, making the print and its supports very thick, the edges on two sides should first be ironed down from in front to ensure position, and then, turning the print over face downward, the heat and pressure should be applied through the back of the last mount. If at any time some portion of the print or the mounts comes away from its support, it can always be ironed down without difficulty; and should any of the solutions get on the face of the print or the mounts it can be rubbed off with absorbent cotton or a brush dipped in wood alcohol.

This is the best and cheapest method of mounting I have come across for the large majority who do not possess mounting machines.

NATIONAL ACADEMY OF PHOTOGRAPHY.

BY CHARLES WESLEY HEARN.

(Concluded from page 246.)

In the June issue of this magazine attention was called to the report on the National Academy of Photography, which is to be handed in at the Milwaukee Convention, July 12 to 16, 1910. The object of the publicity is to attract to it the attention of our members, to enable them to give it some prior thought, so that if legislation is at that time attempted, all previous consideration would be of advantage.

In the issue mentioned there were, among other things, a brief history of the movement, the basic principle which underlies it, together with some views of the writer relative to a matter of sentiment, an acknowledgment of which would be a call to the support of the Academy prior to and subsequent to its inauguration.

While the writer, with others, may concede this to be the case, and in consequence is inclined to give all the support he can to the movement, there are other reasons why it should be supported; and, as presenting another viewpoint, the writer will mention such as may occur to him at the present moment.

Although bringing the matter forward features a point which thus far he has been very careful not to bring forward, as it is so much at variance with the views he prefers should prevail, yet he realizes that there are some extremely practical men in our ranks (many of whom are not deficient in ideality, either), who wish to see if there be any call for supporting a movement from the point of view of *self-interest*, entirely devoid of sentiment or the pursuit of abstract ideals.

Self-interest may mean the honor or financial benefit, or both, to an individual or groups of men. Boiled down, it would mean these benefits to the reader of this paper. That is putting things on a strongly defined basis, entirely removed from the welfare of

photography as an art; but let us see how things shape from this angle of self-interest.

While the better class of photographers are more or less careful to preserve the unwritten, but none the less supported, code of ethics maintained by other bodies of professional men, with few exceptions, we rarely fail, if good business men, to avail ourselves of every honorable means of self-exploitation, when such can be effected so that it is not too "raw." We may or may not cover our noteheads with pictures of medals, but we ofttimes plead guilty to small type insertions upon them, stating that they have been received, and exhibit them on the walls of our studios and in various other ways give publicity to their existence.

We are all aware that the line of demarcation is hard to define as to what we should or should not do; but we try legitimately to do what is dignified, even if it savor of aggressiveness, impelled by the necessity of self-interest—the success of our business. If we give publicity to the receipt of medals, and feel we are justified in doing so, if not improperly accomplished, would not the fact that the reader may be one who might possibly be honored by being selected an academician or an associate member of a National Academy of Photography also present an asset upon which to do business?

By precedent established in degrees conferred by colleges and other learned bodies, and by various academies of art, initials are properly used after names in certain cases, without the question of good taste arising, and without the danger of criticism being justly tenable.

We may not parade the fact on all occasions, as did a man seen at the last St. Louis Convention, strutting around the hall with an Aristo gold medal suspended high, and against a black vest, yet in a perfectly proper way these initials could be used with great profit, since they would command respect and esteem in the eyes of an appreciative line of patrons.

Self-interest also concerns us in results possible of accomplishment, if the contemplated move is successfully undertaken. These are of indirect advantage. In this especial instance, it is personal to the masses, for there are comparatively very few who could qualify in an academic race. We would be indirectly benefited by the upbuilding of photography in the eyes of the public by the superior work naturally expected to be made by the academicians, and by their public exhibitions, and such other publicity or educational work as they may undertake; the result of concerted action upon constructive work intelligently conceived and worked out. Anything that would tend to dignify photography would also tend to dignify all the better men following that profession.

The higher the standard that could be set and maintained, the greater the reward. Do not make the mistake of thinking that the only one who profits is the maker of the picture, even if made by a competitor. The art is benefited and attention is drawn to a fact or condition that exists, and the public mind immediately looks to see if its favorite photographer is associated with such progressive movements. It behooves us, if temporarily eclipsed, to be somewhere in evidence. Our inning may come another day. It never will if we do not strive to be in the vanguard of such movements, rather than hopelessly in the rear.

In addition to drawing the public eye to the better class of work made, through the Academy's exhibits, in which pictures acceptable to the academicians and others not members would doubtless be accepted and exhibited, necessary aggressive steps would be taken for their notice and appreciation.

These are the educational advantages to be derived from their labors in *the interests of the photographers themselves.* Following in the lines pursued by the academies of art throughout the world for the last two centuries or more, there would probably be, as soon as the Academy was strong enough to undertake it, lectures on art applicable to photography and education in other lines pertinent thereto. It may not be on the same plane as deemed most advisable for our membership in our various States and the Photographers' Association of America, but would be on a higher scale, where our more advanced members would be those most directly benefited.

This would not necessarily work to the disadvantage of associations already in existence, either in a diminution of attendance or loyal support. It would rather work to the advantage of both, as the Academy, being devoted to the interests of the art alone, would not take up or handle many of the questions likely now to be more properly taken care of in the P. A. of A., with its newly inaugurated method of united action on necessary matters that will be formulated for the benefit of professional photographers throughout the country.

It may be asked by the reader, how is the Academy to undertake these exhibitions—this education of the public taste in divers ways—the education of advanced photographers and such other progressive work, which, as readily conceived, could be effected by a body consisting of the most able and skilled men in the profession.

Without going deeply into the matter, which time and space prevent, the committee's solution of which will be made known in a few weeks anyhow, it is undoubtedly meet and proper to state here something which will be sufficiently illuminating as to show the reader that your support is called for a project which can eventually be worked out if photographers as a class will lend their aid.

Any plan would be nonsensical which did not attempt to provide a method through which funds might reasonably be expected to be properly acquired for such work. The attempted creation of an Academy for the sole object of placing a certain number of people upon a pedestal, however worthy they may be, with no duties to perform, no work to accomplish, would never be entertained by the Photographers' Association of America.

Before attempting a solution to effect this, it was "up to the Committee" to do some research work, in order that any plan proposed may be founded upon something whence success has formerly resulted, and to adjust the same to fit the conditions that exist with us. Although this has taken much time, and has resulted in something that will be offered the Association, it is not expected to go through as reported without some changes, where the committee may not rightly have interpreted the will of the majority of our members.

It was most instructive, however, in tracing the moves made, the steps retraced, and other advances made by the wonderful country of France in its efforts to become the leading art country of the world.

For over two centuries she persevered in her object, withstanding all of her own internal troubles, each generation succeeding the prior, and keeping up without a break their construction work, that would tend toward the beautifying and glorification of the nation. She encouraged art of every kind; no cessation of vigilance anywhere on any line.

In this work France was united by the national absorption of an idea, the maintenance of a sentiment, which was that the beautiful in every form, be it in painting, sculpture, architecture, or in literature, should be supported. In this were united the plain and educated

people alike, their nobles, ministers of state, their royalties. It made no difference as to the form of government; nothing more than a temporary delay, as of a day, prevented the continuance of the work.

While her art was young, the most promising pupils in their academy were sent to Rome, the then leading centre of art, and kept there for years by their government, who paid all their expenses of living and instruction that they might advance in knowledge and return to embellish their own country by their work. They were satisfied and contented if their pupils succeeded, as many of them did and wandered to other countries, where they received honors at other courts. They sooner or later came back and made for their native country the works of painting, sculpture, and architecture which even today shed glory upon that period. It seems at times that the people of France were indifferent what money was spent, where it went, or if value were ever received, so long as it went "for art, for art's sake."

The encouragement and support of art in England, and the final establishment of their Royal Academy of London, was owing to their sovereign, to whom only were they responsible, and who made up their deficiencies for about twelve years, after which time, for about one hundred and fifty years, they have so conducted things that their work, the establishment of the English School of Painting, has been effected without again calling upon any sovereign for any further aid. Their success has been attained through having been housed at the government's expense, without being under the control of their government, a peculiarly favorable condition existing which rendered effective such plans as they may enter into. They must have been unexceptionably good business men, all these years, for their work has been great, and the English School presents some of the most satisfying pictures ever made.

Their first president, Sir Joshua Reynolds, must have been the cause of the prestige in its earlier days, and his discourses to his students are the text-books of students at the present time. The Royal Academy of London seemed to have availed itself of all the privilege of its Royal charter, since little information is obtainable as to its self-government.

The foundation of art in this country was the establishment of an academy in 1806, which after a time, owing to the method of government, comparable to a close conservative corporation, soon broke up, since those in authority were not representative in embodying the ideas of artists, upon whom they depended. The creation of the National Academy of Design, after two or three minor changes, was then effected, and the Academy building was constructed at the time of our Civil War. In fact, the corner-stone was to be laid a day or so following the assassination of President Lincoln, but was temporarily postponed.

All things considered, it seems that the establishment of that Academy, which availed itself of all obtainable knowledge from England, France, Italy, etc., and has worked out a method which is familiar to our country, seems most desirable for us to follow in the establishment of our own. They had experience galore, about government by others than artists, and had seen the beauty of a century of successful life in the Royal Academy of London, to warrant them in running their own Academy. To raise funds, they pursue a plan most effective, resulting in increased prestige, rather than the reverse.

Our Committee is in hopes that our own Academy, if established, will be most successful, it being the first one known ever to have been attempted in any country.

PHOTOGRAPHIC TILES.

THE blue print process is one of the oldest photographic methods, and one of the simplest. It does not lend itself very well to pictorial work, pure and simple, but it was very successfully put to a decorative purpose by Mr. W. H. Smith, who demonstrated before the Croydon Camera Club how to make imitation Dutch tiles by its aid.

The advantages of the process as pointed out by him were cheapness and the ease with which the paper could be prepared at home. The secret of getting such prints as he showed consisted merely of the use of freshly made paper developed in a suitable acid bath.

The paper is first sized with gelatine in the form of cold jelly, which is rubbed into the paper with a pledget of muslin until the sheet of paper lies quite flat and damp. The sensitizer consists of two solutions: (*a*) a twenty per cent. solution of ferri-ammonium citrate, and (*b*) a ten per cent. solution of potassium ferricyanide. For use, equal parts of each are taken and mixed together. Unmixed, the solutions keep well. A small quantity of the sensitizer (about three drams for a sheet 26x20) is poured on the freshly sized paper, and spread evenly with a brush improvised from a piece of celluloid doubled in half with a piece of muslin stretched over it. When the surface moisture has disappeared, the paper may be hung up to dry, after which it is ready for printing. The sensitizing must, of course, be done by artificial light, and the reason for doing it immediately after sizing when the paper is damp is that it is much easier then to get an even coating than when the paper is dry.

Printing is done in the usual way, and there is a visible image. When taken from the frame the print is developed either in a one per cent. solution of hydrochloric acid, or in a bath of acetic acid of the same strength. The color given by these two baths differ. Hydrochloric acid gives more half-tone, and so is very suitable for prints from hard negatives. If the paper has been over printed it may be dipped into plain water before putting it into the acid bath. Development is complete in a very short time, and then the print may be hung up to dry.

For making tiles the prints should be 6 in. square, and great care should be exercised in choosing suitable subjects. The main picture need not occupy the whole tile. Mr. Smith showed many with the main subject occupying the centre 4 in. square, and the inch margin with a geometric design printed from a negative cut out of black paper, and others with the margins merely sunned down in various ways. The print is mounted in the ordinary manner on a 6 in. square of cardboard, and that is glued on to a square of wood a quarter of an inch thick. To complete the tile it is varnished with an ordinary white paper varnish.

The tiles may be made up into panels by having a frame made to fit the number required from a narrow oak picture frame moulding of a perfectly plain design. The tiles are put into this as a picture would be, and secured in their places with the usual thin backing of wood. For trays the frame should be furnished with a glass front to protect the face of the tiles, which would otherwise be stained by hot liquids.

The completed task of perseverance only has never been begun, and will remain unfinished to eternity—a monument of good will and foolishness.

THE BACKGROUND.

ONE of the commonest defects the ordinary photograph shows is the force of outline of the figure against the background. A good general rule to observe in this matter is that the figure should always merge into the background at some part, and generally in more places than one. Only in this way can the background and figure be made parts of one scheme of light and shade. The difficulty of getting the light and shade of the background to properly relieve the figure is one that frequently occurs, but for half-lengths and head and shoulder portraits it may be practically overcome by employing a number of grounds slightly varied. In his "Treatise on Painting," Leonardo da Vinci says: "I would have the painter to accommodate that part which is enlightened so as to terminate upon something dark, and to manage the dark parts so that they may terminate on a light ground." And in another place: "The ground which surrounds the figures in any painting ought to be darker than the light part of those figures and lighter than the shadowed part." This method will give the maximum of relief, and, of course, great force and vigor to a portrait, but it is quite evident Leonardo meant it to be used with discretion, for in another chapter he says: "A face placed in the dark part of a room acquires great additional grace by means of light and shadow. The shadowed part of the face blends with the darkness of the ground, and the light part receives an increase of brightness from the open air, the shadows on this side becoming almost insensible, and from this augmentation of light and shadow the face has much relief, and acquires great beauty."

Sir Joshua Reynolds advocated this relieving of dark with dark and light with light in one of his "Discourses." Sir Joshua, however, adopted both methods and doubtless selected that most appropriate to the subject of his portrait.

This appropriateness or "fitness" is, in fact, an important matter often lost sight of. Not alone in choice of background and force of light and shade generally should discrimination be shown between portraits of men and those of ladies and children, but accessories and occupation require thought. The observant operator finds out what interests the sitter, and so secures fitness, or no incongruity of pose, expression, or occupation; at least, this must be so if portraits are to be produced expressing individuality. A footnote to Leonardo's instructions as to representing children, old men, old women, and so on says: "The author here speaks of unpolished nature; and, indeed, it is from such subjects only that the genuine and characteristic operations of nature are to be learnt. It is the effect of education to correct the natural peculiarities and defects, and, by so doing, to assimilate one person to the rest of the world." The tendency in commercial photography is to eliminate "the natural peculiarities and defects," and though one aims at a little idealism, care should be taken to avoid reducing all portraits to a "dead level of commonplace excellence," as H. P. Robinson phrased it.

The influence of the background on exposure has been repeatedly mentioned by Mr. Harold Baker, but it may be well to note the points to which he has called attention. In general a shorter exposure may be given, say for a head and shoulders portrait when using a dark background than when a light-gray vignette ground is employed. The difference is sometimes as much as between one and three seconds. All the lights in the face are accentuated by the dark ground, and

care should be taken not to carry such exposures too far in development, or a hard, chalky effect is produced.

Having considered the arrangement of the lines in the picture, and the disposition or scheme of light and shade, we are still left with the question of focussing or the sharpness or softness of definition.

We have seen that the lighting may be so managed as to emphasize or subdue certain parts of the subject, but it will be evident that a diffused or softened outline will be much less insistent than one which is sharp and clean-cut. Certain parts of the picture call for a sharp rendering; others of less importance may be less sharp.

As a general rule, for the best pictorial effect, nothing should be really quite sharp except the eyes, but it will be found in the case of commercial work that a more general crispness is demanded. It is, moreover, almost impossible when working with the usual portrait lens, or with anastigmats, aplanats, or rectilinears, even at large apertures, to keep everything except the face softened in definition. Wherever any part of the subject is in the same plane there will be equal definition. In fact, the ability to arrange the figure suitably with regard to that particular plane which the lens is defining is one of the earliest difficulties met with in portraiture.

The more nearly important parts of the figure can be placed in the one plane, so that they may be in focus at the same time and with the plate in its normal position, that is at right angles to the principal axis of the lens, the more accurate will be the proportions of the various parts of the picture; the hands will be proportionate to the size of the face and so on.

The swingback may sometimes be used to get parts of the figure into focus that are in another plane from that of the face, but when this is done inaccuracies of scale are at once introduced. It will be apparent that if the head is, let us say, fifteen feet from the lens and is sharply focussed, and if the hands are thirteen feet six inches from the lens, and are sharp at the same time, they will be represented on a slightly larger scale than the face, just as a print which is being copied is brought nearer to the copying lens when we wish it rather larger on the focussing screen. If the hands are not sharp, however, owing to insufficient depth in the large aperture lens, and we employ the swingback to make them so, the scale is still further increased, because the focussing screen is moved farther from the lens, and the rays forming the image of the hands diverge still farther before reaching the screen. This is the case with any lens used for every-day practical work in the studio, but when lenses of too short focal length are employed the fault exists in its worst form.

I have not seen this point emphasized or even mentioned in any articles on portraiture, but it appears to me an important one, and a frequent cause of the complaint that "the hands are too large." It is one, of course, with which anyone who has studied the optical properties of lenses is quite familiar in theory.

Harold Baker recommends the employment of the side swing as a means of getting the shoulders in focus, presumably when the figure is turned to a three-quarter position. The swinging of the back in any direction in taking portraits seems to me undesirable and likely to produce distortion. The following simple experiment may be tried: Place the camera on a copying board and adjust on the perpendicular easel a perfectly rectangular piece of white board, such as a cabinet mount. Now, with the swingback vertical sharply focus this, and then swing the back, either vertically or sideways. The image of the rectangular mount will be no longer true, but wider across one end or one side

according to the way the back was swung. This can be measured, and what occurs with the mount must equally occur with the sitter.

Apart from the sharpness of the picture there is to be considered the amount of detail which we wish to render. This, of course, depends principally on the lighting, and to some extent on the surface of the paper on which we propose printing, but it is affected also by the length of the exposure. A short exposure will tend to subdue shadow details and to emphasize the gradations of the high lights. On the other hand, a longer exposure will give a softer result, and the shadows will be more broken up. It is not desirable to shorten the exposure to such an extent as to produce shadows devoid of detail. Such a course tends to give heavy shadows with no transparency or depth.

The exposure demanded to a considerable extent will depend on the subject.

Thus, two sitters may be taken in rapid succession with an unaltered light, yet the exposure in the one case may be two or three times that in the other. In one case we may have a lady in a white dress in front of a moderately dark ground. Full strength of detail in the background is not necessary, but sparkle and good gradation are wanted in the dress. The exposure given may be a trifle more than the dress demands, but not so full as to flatten the high lights of the draperies, care, of course, being taken not to develop to too great density. In the second case, with a sitter in a large black hat and black velvet dress, a much fuller exposure will be needed, because strength of detail will be expected in what are essential parts of the picture.

STUDIO ETHICS.

Some Remarks by Frank Scott Clark before the Photographers' Association of Michigan.

It is a mistake for one photographer to copy another. You should be craftsman enough to create a style entirely your own. It will cost you less and place you at once on a higher plane. You have all the raw material of the various manufacturers to draw from.

Don't make the mistake of making an overcharge on work not equal to those higher up, as you will lose it through your lack of strength to defend what you did not earn with your own ability.

Half-hatched plans are useless; you'd better throw them out. Thoroughness is the vital thing, the country is full of those who do not achieve what they conceive. Pay strict attention to small details in every department and don't be afraid to take your employee into your confidence, explaining calmly to him his shortcomings, and if he be the right sort and grasps your well-directed effort to help him build up his craftsmanship to a higher degree, he will in turn reciprocate by taking a keener interest and render you the same service with the same spirit of frankness.

A fairly good craftsman will say: "I can not understand how Mr. S— is able to command the price he is said to receive for pictures." I will say to the profession that we are not all equal, socially, intellectually, or physically. Personality enables one to maintain his higher price with much less difficulty. A strong personality with calmness of mind, common

sense, and a careful exactness of your methods employed in the technical part of your work will enable you to receive just as much as Mr. S— when you have attained his state of perfection.

A physically weak man can make himself strong by patient and careful training; so the man who is weak in his work can make himself strong by exercising himself in right thinking. Calmness of mind is the result of a long and patient effort of self-control. The calm man can adapt himself to others; they feel they can rely upon him.

The more tranquil a man the greater his success; he can command a higher price, for he is a better salesman than the nervous, irritable man. Fix your thoughts upon the faultless performance of your duty; you should conceive of a legitimate purpose and accomplish it.

Do not work aimlessly, begin thinking with purpose: having conceived of your purpose you should work out a straight pathway to achievement.

Doubts and fears should be put aside, as they never accomplish anything. Purpose, power to do, and all well-directed thoughts stop when doubt and fear creep in. Remember that nothing comes of nothing, and they who have laid up no materials in their store of knowledge cannot expect much from a brainier, much-travelled, and well-posted picture-buying public. They can oftener do better with their hand cameras and are better pleased with the average post card than much of the miserably developed paper prints that are delivered as examples of perfect photography.

Photographers are themselves to blame for the condition of their business. So much rotten work has been shoved out of their studios that many people are losing respect for them. There is nothing more beautiful than perfection in the art of photography. Too many workers have been trying to copy the old masters, using as their guide reproductions and such works as masters in art.

These studies so black and white are only fit for studies in composition. The originals are soft and have luminous shadows full of beautiful detail. The photographer has copied them literally, making the hands, arms, and backgrounds of his pictures very dark, and, in fact, his pictures are often muddy and dirty.

It requires much skill to so carefully light the figure that the parts subdued will keep their luminous qualities, and the figure will have, when the print has been completed, its complete envelopment with all its atmospheric qualities. Pictures possessing these ideal qualities are seldom made by our most advanced craftsman. They can be made by much patience and great skill, and when such great work has been accomplished there can be no such thing as an overcharge. Don't be careless in selecting your material. Our Michigan Society will not grow and prosper unless its members will become better craftsmen. Deliver your work like a master. Ask and receive a high price.

A DRAWING-ROOM DAY.

THE French say we take our pleasures sadly. Maybe we do, or it may be that our polite neighbors do not give us credit for what little imagination we have.

For example, if a Frenchman saw an Englishman spend the whole of a summer's afternoon looking from one side of Bond Street to the other, making himself as comfortable a seat as he could

with the handle of his umbrella, the Frenchman would say, "How sadly that man enjoys himself!" Yet that man might still be having a good time of it.

Is it not in Bond Street where the *élite* of the photographic profession practise their arts? And whenever the King holds a drawing-room, are not the arts of the Bond Street photographers called into play?

From his seat on his umbrella handle the sad Englishman soon finds out where the fun is most furious, for there is the biggest crowd watching the cabs empty themselves of Court beauties. It is interesting to note the difference in the fair sitters. Some seem to be ashamed of being seen by such common people as surround the cabs, others are just the opposite. As a rule, the cab load consists of the fair one, her mother or her aunt, and her maid. As a cab draws near the door the porter rolls down the red carpet How rarely the cabmen make mistakes and get to the wrong photographers! Who knows but the cabbies are all heavily subsidized by the photographers! Once the fair beauty sets her feet on the red carpet there is no turning back, for cabby has by that time driven off to make room for the next one. How quickly the beauties follow each other! Wherever do the photographers manage to put such crowds? They must have long suites of waiting and dressing rooms. Then after a time the fair ones come down again, and the crowd gets a much better view than before. Down goes the red carpet as a carriage with two cockaded footmen drives up. The crowd peers into the doorway as much as it can for the two policemen on either side. Then appears, instead of an expected beauty, only the photographer's errand-boy with a wine-basket with six empty bottles on his arm. The crowd smiles and the porter rolls up the red carpet. It must be thirsty work making pictures at such high pressure. Here comes a Lifeguardsman and a lady. Is it out of courtesy to his fair companion, or because the cab top is so low, that he takes his helmet off before he gets into the cab? How thankful he must be that he lives in the twentieth rather than in the eleventh or twelfth century; for then how the small boys would have jeered at him as he would have been hoisted up outside the photographer's studio with chain and windlass! How difficult it would have been to have got the hook at the end of the chain to hook on to any part of his armor; and what a weight he would have been for the poor photographer turning the handle at the top, as his gallant sitter neared the skylight!

No; there is not much sadness in watching outside a photographer's door on a drawing-room day, unless it is that the flowers in the bouquets have a sorrowful look; already they seem to say, we are going off, and was it for this that we came into the world? Then someone drops a halfpenny on the pavement, and the sad one on his umbrella handle finds his thoughts turned from Crusaders in suits of steel, and from flowers from the Riviera, to pounds, shillings, and pence, and he finds himself mumbling: "Thirty-two sitters in an hour and a half. If they only order a dozen each at ten guineas a dozen, that works out at three hundred and thirty-six pounds; not a bad day's work." Yet there are people who would abolish the House of Lords, and then perhaps there would be no drawing-rooms and no Court beauties for the Bond Street photographers to flourish on.—F. M. SUTCLIFFE, in *The Amateur Photographer*.

The masterpiece should appear as the flower to the painter, perfect in its bud as in its bloom, with no reason to explain its presence, no mission to fulfil, a joy to the artist, a delusion to the philanthropist.

WATER.

Of all the materials used in photographic work, water is most largely employed; and to water is given the least attention of any photographic chemical.

Water is a chemical, just as much as pyro or citric acid; but because it occurs so abundantly in nature we are apt to overlook this point, and, in fact, to ignore water altogether, and to look upon it as merely a necessary commodity.

It is quite a common thing to see in published formulæ the recommendation of distilled water; thus, in making up toning solutions and developers distilled water is almost invariably recommended; sometimes you will see the phrase "distilled or boiled water," showing that there is some definite preference for these over ordinary or tap water.

Water should be a plain combination of the gases hydrogen and oxygen; but tap water contains numerous impurities, such as iron, chlorides, and so forth. Hence the man who despises distilled water, and makes up his solutions with water from the faucet, runs many a risk, and sometimes gets trouble, which he, of course, puts down to inferior plates or paper.

Sodium chloride is well known to be a restrainer of developers, and therefore if one week you make up a stock of solution with city water, you may not find it work quite the same as another solution you make up the next week. The quantities of impurities in water vary frequently, and tap water is in consequence an uncertain element.

Iron causes many troubles, depending on the character of the solution; thus a pyro-ammonia or hydroquinone-soda developer will give rise to purple or black spots (respectively) in plates, which appear on and after fixing if the city water contains iron. There is so much rust, etc., in the water in some districts (especially when any alterations are being made in the mains by the local authorities), that sometimes it is quite desirable to lay four or five thicknesses of muslin over the faucet. Try this experiment yourself, and after a week remove the muslin and examine it; it will probably be quite reddish brown with rust.

City water also contains lime and magnesia, the former being the chief cause of "hardness;" temporary hardness is removed by boiling the water, *i. e.*, the calcium carbonate is precipitated, and living organic matter is similarly destroyed; otherwise boiled water is little preferable to tap.

Distilled water, which is condensed steam, is practically pure, and should really be used by careful workers in the making up of every solution except the fixing bath. If this be done, you will then know that solutions made at different times will always be alike, unless perchance impure chemicals be employed—but this is not very likely at the present day, save in one or two cases. The following tests for water will prove of interest, and it will be worth while making a note of them in the dark room for reference.

Chlorides.—Dissolve ten grains of nitrate of silver in an ounce of distilled water; add a few drops of this to some of the water you are testing; the latter will at once turn milky if chlorides are present, and on adding a little ammonia it will become clear again.

Iron.—Add two drops of strong nitric acid to about four ounces of the water, and boil the water in a glass beaker until it has become reduced in bulk to about

half an ounce; let it get quite cold, and then add four drops of a 5 per cent. solution of potassium ferrocyanide, and stand the beaker on a sheet of white paper. If iron be present, the water rapidly assumes a blue color.

Organic matter is present in city and rain water, but the latter is in other respects equal to distilled, and if boiled first may safely be used for making up developers, but not gold toning baths.

SMALL ENLARGEMENTS.

It is a popular idea with many photographers that an enlarging lantern is of no use unless for the production of pictures of some size, something larger, at all events, than the humble 3¼ x 4¼ or 4 by 5's that the ordinary man secures with his camera.

It never occurs to these workers that enlargements of the same size as their negatives would often—more often than not—give them pictures more pleasing to the eye of the man in the street and more pictorial from a photographic point of view than contact prints from the same negative. Yet such is the case.

The expression "enlargements of the same size" sounds paradoxical; but it is correct. What is meant is that the enlargements have the same surface measurement as the negatives, but that only a small portion of the latter appears on the paper on which the enlargement is being made. Thus, from a quarter plate negative we may select a piece the size of a postage stamp and make a quarter-plate picture of it.

The reader who asks what is the sense of that, has not yet realized the fact that many of his 3¼ x 4¼ plates contain a wealth (or perhaps "abundance" is a better word) of detail which precludes all possibility of a contact print being in any sense a picture. There are perhaps three or four objects on the small negative, each of which competes with the others, and not only robs them, but is robbed by them, of the concentration of interest without which pictorial photography is impossible. If, however, instead of one print with four objects of interest, each asserting itself to the detriment of the others, we make four enlargements, one of each of those objects of interest, it may be that we shall have four pictures.

The idea of getting four pictures from one 3¼ x 4¼ negative may seem rather far-fetched, and, to prevent anyone running away with the notion that a photographer should be able to get four pictures from one small negative, perhaps it should be mentioned that the suggestion of the "four in one" negative is used mainly for the purpose of emphasizing the point. The four pictures is not an impossibility, but more probably our quarter-plates will give us only one picture, which means that most of what went to make up the negative is useless pictorially; that, in fact, if when we were exposing the plate we had selected a small part of the view and had placed our camera nearer to it, or had used a lens of longer focus, we should have got all that was necessary or desirable. That is so, and we should also have been saved the trouble of enlarging at all. Unfortunately, however, the faculty of selection is not always so marked when we are exposing our plates as it is when we have the negatives before us; hence the use of a small enlargement of a small part of a negative.

Exercising the faculty of selection in this manner will also be of assistance

when the worker aims at something larger than enlargements of the size indicated. If you submit a print to a critic and ask what is wrong with it, he will probably tell you that it wants trimming; and if you trim off a considerable portion and again ask what is wanted, as likely as not you will be told that it wants considerably more trimming. By the time you have again applied the knife or the scissors your print, originally 8 by 10, may be reduced to something about half-plate size. At that, however, it will probably be a picture, whereas the 8 by 10 print was merely a photograph. If, however, you had been able from your small negative, or from a contact print from it, to select exactly the bit which, when enlarged, would make the picture, you might have proceeded straightaway to enlarge that bit on to a piece of half-plate paper, which would have been cheaper.

Of course, the advanced worker may tell you that the faculty of selection can be best exercised only when the enlarged print is before you. But we are not all advanced workers; some of us—most of us, indeed—are merely workers striving today to do something which is better than that which we did yesterday, and buoyed up with the hope of eclipsing today's work by that of tomorrow. And it is humbly submitted that what we have called the "small" enlargement will be of considerable assistance in bettering our work.

It may be urged, however, that small enlargements will assist even the advanced worker. Many a big enlarged bromide print has been made with the only result that it has served to show the maker that there were absolutely no pictorial qualities in any part of his negative; and perhaps, with this knowledge gained, he has felt that his expenditure of time has not been wasted. He may not feel the same, however, as regards his expenditure of money; and that he might have saved to a large extent by carefully studying a contact print from his negative. From that study he could surely have narrowed the pictorial possibilities of his negative down to, say, one part of it; and a quarter-plate enlargement of that one part would have been just as illuminative as, and infinitely cheaper than, his big enlargement of the whole negative.

Don't imagine, therefore, that large prints are the necessary complement of an enlarging lantern. Small enlargements may be pictures in as great a degree as large ones.

And at the very worst they are very much better than contact prints, unless in those rare cases when we have been unusually careful, or lucky, in our selection of what to include in our negatives.

PROFESSIONAL PHOTOGRAPHERS' CLUB OF TOLEDO, OHIO.

THE Professional Photographers' Club of Toledo held its sixth annual meeting and banquet at the Boody House, May 9, 1910.

After the banquet, which was a most enjoyable affair, the meeting was held in another room of the hotel. President W. F. VanLoo presided.

This annual meeting was attended by thirty-four members of the club, good fellowship and a lively interest prevailing. After the committees' reports had been acted upon and other work completed, the following officers were elected for another year: W. F. Van Loo, president, and Geo. B. Sperry,

secretary and treasurer. The following directors were also chosen to serve for the coming year: J. A. Walker, Bowling Green, O.; Geo. D. Smith, Oak Harbor, O., and G. Beck, Monroe, Mich.

The Professional Photographers' Club is now enjoying its most prosperous year. It is the outgrowth of meetings held by photographers of this city to formulate a plan and devise means of entertaining the Ohio-Michigan association members at its convention held in Toledo in 1904. This body was known as the entertainment committee. A permanent organization followed, with the name of the Lens and Brush Club of Toledo.

President W. F. Van Loo, in his annual address, advised giving annual exhibitions showing the different kinds of work by master artists of the world. He suggested the project and warmly endorsed it. It was received with general approval.

The following is an extract of Mr. Van Loo's address:

Another year has gone by and the seeds sown by our little club have brought forth a splendid harvest. Good men and good photographers have joined in our effort to promote fellowship and sociability among the craft.

We have been splendidly entertained by our out-of-town members, and I trust they will be benefited thereby. Our efforts in certain lines have been recognized and the dealer given to understand that he must not enter the professional field. Schemers have been foiled in their efforts to unload "gold bricks" on us, and we are gradually nearing the point where we can take up matters that will eventually bring financial benefit to all, and secure for us a higher standing in the business world.

I would at this time particularly suggest the giving of an annual public exhibition of enlarged work, miniatures, and photographic novelties. The assistance of artists working for the trade can easily he had, and makers of fine frames will gladly coöperate. A splendid exhibit can thus be secured, wherein all would share equal advantages. The public would recognize that for fine work the canvasser is not in it.

Such an exhibit after being shown in our city, could be passed on to the members of our club residing in other towns, and what a boost we could give them by attending on the opening night.

I hope this will be seriously considered and action taken for a fall exhibition.

TRADE NOTES.

J. F. Adams, of 459 Washington St., Buffalo, N. Y., advises us that on June 1 his store was robbed of a number of Cooke, Goerz, Ross, Zeiss, and other lenses, Kodaks, Century and Premo cameras. Any of our readers to whom such goods may be offered from any suspicious source would do well to notify the local police and wire Mr. Adams at once.

Ansco Company is another concern that has to enlarge its plant. To cope with the growing demand for Ansco film and Cyko paper, they have secured the big plant of the Marshall Furniture Co., of Binghamton, which will be remodelled and put into operation pending the completion of plans for the addition of further buildings to the already huge plant at Binghamton. In our last issue we inadvertently referred to Ansco film as Cyco film; Ansco was, of course, intended.

The Northern Photo Supply Co., of Minneapolis, Minn., advise that they have taken over the Multiscope & Film Co., of Fargo, N. D. The company will continue their Minneapolis office as before, and the Fargo office will remain under the management of Mr. E. W. Shultz. They will continue their independent policy and carry large stocks of fresh goods at reasonable prices. Prompt service and careful attention is promised to all.

In order to keep pace with their rapidly increasing business, Burke & James, of Chicago, have taken title to a half-acre plot, on which they will build a six story building of handsome design. The rapid growth from a single small room, with less than ten employees, twelve years ago, to their new building, with over two hundred employees, is a sure indication of sound and progressive methods.

The Bausch & Lomb new photographic catalogue, which has just reached us, is the handsomest one thus far issued by that enterprising company, and their publications are all of a high order of merit. The cover is a pleasing design, representing a conventionalized landscape seen through a window. The colors are quiet and harmonious, and the book is artistic, as is befitting a photographic catalogue listing only the highest grade lenses and accessories. The careful and consistent plan upon which it has been built has been so well carried out as to confer credit alike upon its editors and printers. It is profusely illustrated with fine half-tone engravings of subjects of the most varied kinds, which will appeal to all interests. An historical sketch of lenses, a glossary of photographic terms, tables showing Angle of View, Depth of Focus, Exposure and Shutter Speeds, make the book unusually valuable. Bausch & Lomb would like to place a copy of this new catalogue in the hands of every person interested in high-grade photographic equipments, and to this end invite requests. It can also be procured from photo dealers.

George Murphy, Inc., 57 E. Ninth St., New York, have just issued their 1910–1911 catalogue. It is a very complete list of things photographic, profusely illustrated, and well arranged—the sort of list that every photographer should have handy for ready reference. Copies will be mailed on receipt of ten cents to cover postage.

The Imperial Handbook for 1910, issued by the Imperial Dry Plate Co., of London—G. Gennert, 24 E. Thirteenth St., New York, sole agent—contains not only information of the Imperial plate; there are interesting articles on exposure, development, backed plates, winter photography, tank development, latitude, failures, etc. A useful supplement, showing, by means of paper negatives, under, over, and correct exposure and development. The article on latitude alone makes the book well worth sending for. It is mailed free on request.

To paraphrase the saying about the small boy, studio shutters "should be seen and not heard." One of the most reliable and silent shutters is the well known "Low Studio," manufactured by the Kalamazoo Shutter Co., of Kalamazoo, Mich. Their No. 10 is worth investigating; its use will save you many plates and secure sure and pleasing results.

The following prizes are offered for competition at the Photographers' Association of New England. It is an unusually attractive list of trophies, and should command a big list of entries.

1. A sterling-silver loving cup, doubtless the most beautiful and intrinsically the most valuable prize ever offered by the Photographers' Association of New England, is open to the world for competition, without entrance fee, at their convention in Boston, July 26, 27, and 28.

2. Most attractive trophies will be up as usual for competition of members only; as an extra incentive to the various States included in the Association, a State Class has been created in which competition is limited to members from individual States.

3. As in previous years, entries in the complimentary exhibit will be highly appreciated. Particular care will be exercised in hanging *all* exhibits to the best advantage, and the exhibition hall will be so arranged as to make it not only a place for study, but one of comfort and enjoyment as well.

4. Realizing the amount of labor and expense involved in preparing and forwarding an exhibit, as a matter of courtesy the Association will show its appreciation by issuing to each exhibitor in the art department an "exhibitor's certificate," suitable for framing.

5. Full particulars regarding prizes and program are being sent direct to New England photographers, and may be secured by others interested from Mr. George H. Hastings, Secretary, 37 Merrimack Street, Haverhill, Mass.

In this column, in our last issue, we drew attention to a series of valuable money prizes, offered by the makers of Ensign film for the best sets of negatives sent in to the manufacturers, the negatives of course, to be made on Ensign film. Additional money prizes were to be offered by G. Gennert, New York, the American agent for the film. As this particular form of prize offering infringes the rules and regulations of the United States Postal Department, the offering of prizes, so far as American users of Ensign film are concerned, is withdrawn. It is unfortunate that the paternal interference of Uncle Sam's postal authorities prevents American camera users from competing with their English cousins for these big prizes. They will find, however, that the Ensign film is a fairly good prize in itself. It is a well-made, clean, quick film, and gives splendid negatives under every condition.

WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
MRS. EDWARD L. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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EDITOR'S TABLE.

Modern Telephotography.—A Practical Manual of Working Methods and Application. By Captain Owen Wheeler, F.R.P.S. London: Ross & Co.; New York: Geo. Murphy, Inc.; 84 pages; illustrated, paper, 75 cents; cloth, $1.25. Captain Wheeler is recognized as the leading authority on telephotography, and his new manual on this interesting subject covers it very thoroughly. The chapter on Instantaneous Telephotography, by which portraits can be made at a distance of one hundred feet, will interest professional photographers. The illustrations show the ordinary view and the telephotographic magnification from the same standpoint, and demonstrate the usefulness of this additional lens power.

The Agfa Book of Photographic Formulæ, 156 pages, paper cover, compiled by Geo. L. Barrows, of the Berlin Aniline Works, of 213 Water St., New York, by whom it is published. This is one of the most useful formulæ books we have seen in some time. It contains formulæ recommended by the makers of "Agfa" products, as well as the recommended formulæ of the various plate and paper manufacturers, whose product is to be had on the American market, and the photographer who cannot find a formula to fit his particular fancy from this book must be hard to please. The book gives many pages of interesting and useful tables of weights and measures, the making up of solutions, etc., and several blank pages for the addition of your own pet formulæ. While the book is priced at fifty cents—and very well worth it at that—we understand that a copy will be mailed to photographers who will send a label from a package of "Agfa" products and ten cents to cover postage. Mr. Barrows is to be congratulated on compiling, and the Berlin Aniline Works thanked for distributing, so complete and useful a book of working formulæ.

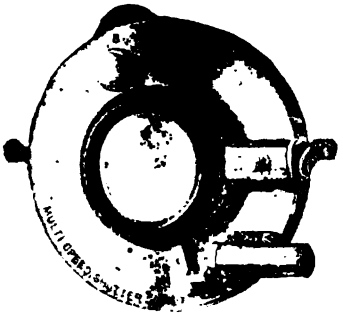
WE have had the pleasure of seeing the advance sheets of the National Association Annual for 1910. Measuring 9 x 12, with twenty-eight full-page engravings of some exceptionally fine portraits, it is easily the finest "Annual" the Association has yet offered its members. The leading article, on "How to Attract Business to the Studio," being an imaginary meeting of leading photographers to discuss ways and means, is altogether an interesting and instructive article. The paper and printing are unusually good, and the book reflects great credit upon the Association and Mr. J. C. Abel, who edited and put it through press. It might be well to observe that this year the Annual will only be mailed to members who are in good standing.

WE are glad to hear from Mr. Lively, of the Southern School of Photography, at McMinnville, Tenn., that the fame of the school is reaching out and attracting students from every State in the Union. Mr. Lively's methods of teaching are well known to photographers who attend conventions. In addition to the thoroughness of the instruction course at the school, the Southern hospitality and kindness shown to the students by the people of McMinnville make the hours of recreation as pleasant and sociable as any student could desire.

AT the last meeting of the Metropolitan Section of the Professional Photographers' Society of New York the following resolution was presented as subject for debate at the next meeting:

Resolved, That it is the sense of the Metropolitan Section that it is unprofessional for a photographer to rent premises in a building where there is already a photographic establishment.

To adopt any such resolution would strike us as very bad policy on the part of any organization. How are they going to define a building? On Fifth Avenue we have buildings that occupy a whole block and contain many hundred offices and numerous stores on three street fronts, not to mention covered arcades. Under such a resolution, the photographer who secured the first lease on a suite of rooms would become the possessor of a valuable restricted area. Healthy competition is good for all trades and professions, hence we find in all large cities buildings containing dozens of lawyers, or engineers, streets of doctors, and on Fifth Avenue we see rows of photographers—in some cases four and five side by side. If competition is too keen, we fear that some method other than dividing up the territory will have to be discovered.



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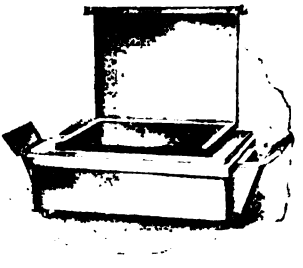

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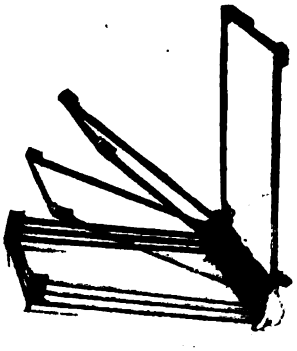

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Vol. XLVII ✣ ✣ ✣ ✣ No. 644

AUGUST, 1910

WILSON'S PHOTOGRAPHIC MAGAZINE

DEVOTED TO PHOTOGRAPHY MONTHLY: ILLUSTRATED

$3.00 A YEAR
SINGLE COPY, 25 CENTS

PHOTOGRAPHERS' ASSOCIATION OF AMERICA

NATIONAL CONVENTION, MILWAUKEE, JULY 12 TO 16, 1910

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OUR PICTURES:

Frontispiece and Three Engraved Supplements from Photographs by The Camp Art Co., Jamestown, N. Y. Engraved Supplement from a Photograph by James Huntington, Brooklyn, N. Y.

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WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVII AUGUST, 1910 No. 644

PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

National Convention Held at Milwaukee, July 12 to 16, 1910.

TUESDAY, JULY 12.

THE convention was officially opened Tuesday morning at 10 o'clock by President Proctor. Former presidents were called to the stage and Commodore Steffens was called upon to say a few words. The President then read the following address:

President's Address.

LADIES AND GENTLEMEN: After an organization which goes back for more than three decades, we are once more assembled to give the word of good cheer and the helping hand, one to another, and to guess what the future has in store for us. Our annual meetings have grown in magnitude and importance, and more and more the things which are said and done and shown will affect the future. It does not seem, when we look over this body of strong, earnest men and women, devoted to their art and life servants to it, that there should come any foreboding sense of harm or danger to the art of photography in America; and yet it behooves us to avoid every possible danger which could come to our Association or to that art which we love. Ours is the task to preserve its highest, finest traditions and more securely fix its place in the future.

During the years in which we have been coming together from all the four corners of our country, in an ever augmented procession, we have hoped and worked for greater efficiency, better organization, and for the fulfilment of higher aims. Every conceivable phase of our work has been discussed many and many a time at these gatherings, and unnumbered plans made, but only now do we appear to be on the threshold of the great upward movement for which we have been steadily working all these years.

I would be the last one to say that our past labors have been wasted, for were it not for the wholeheartedness with which so many of our leaders have gone into the fight, and the influences they have exerted, we would still be far from the goal at which we aim, which is, I take it, a nationwide brotherhood of photographers with standards set high in professional ethics, high in artistic excellence of work, high in the esteem of our fellow-men. Truth to say, we have been

but laying the foundation stones, and the structure remains to be reared; and it is to unite in the rearing of this structure that we are met here in this convention.

These annual meetings of our Association stand for something more than a few days of good times, of good-fellowship, of picture-seeing and instruction. There is a deeper meaning to our gathering here in annual convention and to the gatherings of photographers in States and cities. We may pass the fact over lightly and even forget it in the enthusiasm and sociability of our reunions, but back of it all is the latent desire for improvement, not so much of our individual selves as of our chosen beloved profession.

But this Association will find general recognition for weight and worth and dignity, just in proportion as its individual members strive to raise the standard of manhood and of self-respect in all of their associations at home and abroad. True it is that you carry the inspiration of these gatherings home with you, that you recognize their great influence upon your individual thoughts and lives, that they tend to ennoble your profession; but after all it is the work, the love of the work, and the aptitude for the work which you individually possess, that must bring photography to its highest rewards, and to the photographers highest respect to which they may attain. We can readily recognize the changes which time has brought and is bringing to the personnel of our membership, and to the higher and wider aims which we strive to accomplish. And those changes have been brought about through our conventions and societies. The desire, unexpressed, but there, nevertheless, for improvement, has brought about the improvement, and it remains for us now, as photographers, to take a stand before the world to which we, by reason of our usefulness to the world, are entitled. Can you imagine a business or social world today without photographers to perpetuate every move and every face? The profession of photography is no longer a luxury. Photographers are as much a part of the everyday life of the people as the jewels they buy, the homes they rear, the books they read. Then surely it is high time that we in right of our profession make known to the world that our profession is one worthy of its high respect and esteem; that our studios are conducted by men and women thoroughly capable of giving value received; that, business though it is, it is yet an esthetic business, appealing to the higher or less material wants of the people, and therefore to be classed with the profession rather than with the bills for the things which we eat and the things which we wear. And knowing what we know about our profession, how are we to create the knowledge of it in the mind of the public? That, my friends, is the problem now confronting us. I believe we are sensible that there is a solution of the problem by the formation of our Congress and by the affiliation of State and local societies with our National Society. In unity there is strength, and with strength comes forceful purpose.

Then, again, our new-formed Federation of Women Photographers can do much to show that photography is one of the general professions—one full of refinement. The suggested Academy of Photography, if a way can be found to make it practicable and acceptable (and that will be one of the questions before this convention), could do even more to focus attention on the high standards already attained in our profession, standards that will compel respect; but most of all we can do ourselves, by the way we conduct and advertise our studios and by the measure of quality we give to the patrons of our work. For, never forget, the public will base its valuation of us upon the valuation we place upon ourselves.

You will be called upon in this convention to pass judgment on this proposed Academy of Photography. Give heed and weigh carefully in your minds whether this is a desirable move or not. If its principles are sound and if you desire to give such recognition as the Academy will confer upon the leaders among you, you will vote accordingly.

These are not idle or slothful days in any field of activity, and woe betide us if we fail to keep step with the world's work and growth.

Last year, you will remember, those of you who were at Rochester, that initial steps were taken looking toward an amalgamation or affiliation of the many State and local societies with the parent body—the Photographers' Association of America. We all of us had felt for years that some such movement was needed, but the practical working out of this idea seemed scarcely feasible. At President Barrows' call, however, the various State societies sent their delegates to meet in the first Congress of Photography, and the foundations were thus laid for an affiliation of mutual interests which seems destined to be a forceful factor in the future of American photography.

The second Congress will meet here, and the results of its deliberations will be brought before you later. This Congress will be composed of the delegates from most of the State societies. A few have not yet had opportunity to take action in the matter. The third Congress will probably see representatives present from all the State societies in the country.

The Federation of Women Photographers will hold its first annual meeting here. Under the guidance of its chairman, Miss Mary Carnell, it has done great work during the year last past, and I confidently hope to see it become a powerful auxiliary body of this National Association.

Certain changes appearing to be necessary in the Constitution, as passed last year in Rochester, the Board has had a revision carefully prepared and this will be brought before you for action at the proper time.

Within the year two noted members of this Association have been called from life, and I deem it but a simple duty to their memories to pause here for a moment to speak of them. Ralph Bellsmith, of Cincinnati, some time President of our Association, was one of our ablest and most energetic members and most inspiring leaders. He passed many months of wasting illness before his death, which occurred on May 11. G. A. Douglas, of Chicago, one of the founders of the present Association, and sponsor for its name, and also one of its past Secretaries, has also gone to join the great majority. Quick of eye, deft of hand, and kind and just in spirit were those two men, and we say farewell to them with hearts which have no other thought save one of regret.

But I am sensible that I am detaining you too long. Our Executive Committee has worked earnestly and faithfully to make this a week of thorough instruction and perfect enjoyment. I only hope that its efforts will meet with your approval. The verdict rests with you.

The President then appointed the following committees: On Progress of Photography—W. H. Rau, of Philadelphia; J. C. Abel, of Cleveland, Ohio; W. S. Lively, of McMinnville, Tenn. Resolutions—C. W. Hearn, of Boston, Mass.; A. L. Bowersox, of Cleveland, O.; Melvin Sykes, of Chicago.

The President: Gentlemen, the only business we will take up at this meeting will be the report of the Committee on Academy of Photography. This committee was appointed several years ago; but, owing to the great amount of detail work connected with it, it has failed to make a report, because the committee felt that they were not ready for the

report. The chairman of this, as well as the committee, has given this report every attention, and I think will be ready to present it to you in its proper form and in a form that you will be able to accept. We will now have the report of the committee from the Chairman, Mr. Hearn:

Mr. Hearn: Mr. President, Ladies and Gentlemen of the Photographers' Association of America: Before starting to read the preamble of this report, and the report following it, I would like to say that my colleague, Mr. Harris—also on the committee—has advised me to make a few remarks relative to the intent of the Academy being formed. I think that you are all more or less conversant with the Academy idea, but to aid you I would say this, that the Academy of Photography is designed to put in office a small body of our best people, with a definite object in view, which is that they will do that work for years, which is impossible of being done by our regular photographers' associations. We have here, in our regular Association, a change of officers every year. Nothing constructive is ever possible of being accomplished, because the people who start it are through with the office in a very few months. Consequently, for the development of anything that calls for years of study, years of labor, and everything devoted to the welfare of photography, the Academy is necessary, and that is the real foundation and object of this.

Report of Committee on National Academy of Photography.

PREAMBLE TO REPORT.

Your committee appointed to formulate a plan for the establishment of a National Academy of Photography beg leave to present this preamble and report to this convention at Milwaukee.

In doing this we much regret our inability to obtain the valuable advice and counsel of ex-President Appleton, of our Association, who is also a member of this committee, appointed at Dayton, where Mr. Appleton at that time resided. Since that time he has moved to California, and, although we have sent, during the last few months, to an address furnished us, much data relative to our proposed plans, requesting his views, we have been unable in any way to get in touch with him.

With the desire of being as expeditious as possible, we will pass over the history of this movement, inaugurated in 1906, and state some of the different paths our research investigations have led us, and the findings resultant therefrom, upon which, after considering the situation of our own affairs, our conclusions and recommendations are based.

The marked progressive advancement in art itself, and incidentally the benefit to the artists during the last two or three centuries, has always been in those countries where there has been the most persistent and intelligent work done by various bodies of men, who, after binding themselves together, have striven jointly with a definite object in view. These bodies, not at all times embracing their leading men, finally won the support of enough of them, so that eventually great strides were made. For instance, in France, Simon Vouet, early in the seventeenth century, formed such a band of artists, the outcome of which, in 1648, was the establishment of the French Academy of Painting and Sculpture. About 1663, this Academy interested Minister Colbert, who gave them the moral and financial support of the Government of Louis XIV. While the French Government insisted upon a most liberal scope of work, for which they paid the bills, and while it established an Academy at Rome (which continues to this day) for the benefit of

students sent and maintained there for years, all of the detailed management of instruction, etc., has been left to the Academy. The Government of France officially has given their Academy and all forms of art continuous support for fully 250 years, and it has made of her people the nation of artists that they are today, permeating through every branch of trade and profession. Even if a Frenchman robs us, or marries one of our heiresses, he is always sure to do so in a most artistic manner.

After one or two attempts by the English artists in organizing schools for art instruction, rather feeble in comparison with the grand success which followed, the Royal Academy of London was established about 150 years ago by Royal charter. From this foundation, and the prestige of Joshua Reynolds, afterward knighted, who was its first President, officiating for a score or more of years, art and the prosperity of the artists started, which has given us the English School of Painting, in many respects the most satisfying pictures ever made. It is significant that this Academy is responsible only to the sovereign of the Empire, and not to the legislative and other branches of their Government. During the first twelve years of its existence, King George III made up the yearly deficit of the exhibitions, etc., besides providing the Academy with a home. At his death, the Government found that whereas they were under no legal responsibility to furnish the Academy a home, yet were under a moral obligation to do so, from the precedent established by their former sovereign. So, after several changes from one government place to another, they were given a 999 year lease of the site of Burlington House, at a merely nominal rent, where with additions and changes costing more than £160,000 (over $600,000), taken from *their own* savings, they were permanently fixed amid ideal conditions. The peculiarity of their charter gave them almost absolute freedom of action in carrying out their plans for the upbuilding of English art and everything connected therewith. Their success has been such that their decision on all art matters is the "last word," being thus accepted by people and State alike as final.

It is the success of the Royal Academy of London, and of our own National Academy of Design in New York, that shows us the advantages of an Academy's being managed only by the artists who compose the same, and as free as possible from the control of other influences. The Academy of Fine Arts of New York, which started at the commencement of the nineteenth century, called upon the artists to support it by their works and influence, and yet in the government of the Academy denied them even representation. When the artists rebelled and threatened to withdraw, part representation was promised, and relied upon by them, to be eventually turned down when voted upon by those in control. From this state of dissatisfaction came, finally, the creation, in 1826, of the National Academy of Design, to be entirely conducted by themselves, and the subsequent speedy downfall of the old Academy.

In creating an Academy of Photography, which we deem most advisable for the best interests of our art and artists, we wish to go on record as not antagonizing the National Academy of Design, since we concede the position they hold as the highest recognized authority today on art matters in our country. It is therefore seeming that our Academy, designed to unite a small body of men for concerted constructive work that is apparent to us in the construction of an Academy, should be conducted absolutely by the academicians, free from any unnecessary restrictions imposed by us, except, pos-

sibly, of the most formal character, and such as they may easily accede to. As it is our intention to benefit our art in the abstract, and those photographers who honestly strive to do the best that lies in them, if we give the Academy the liberty and freedom of action that is practically in vogue in the Royal Academy, and the National Academy of Design, we have every reason in the world to believe that it will, on broad lines, labor faithfully to do the work that its hands find to do. These members would not be dullards, but the brightest minds in our profession, and better able to judge of what they ought to do than we would, in a haphazard sort of way, be able to tell them.

It is absolutely the intention of this committee that we dignify these men to the best of our ability, in creating an Academy for them, and request that they will use the proper initials designating their position in the same. The respect we give them would shed its reflections upon ourselves.

In drawing up this report, we have carefully studied in our investigations of other Academies, in what lay their failures and their successes, and have tried to give what is apparent to us as the most advisable course to pursue, doing nothing whatever that would conflict with the Academy's usefulness in the future.

Report of Committee.

Our object is to create the initial members only, of a small body of eminent artists, who, by working together for years upon intelligent lines, could accomplish much for the prosperity of our art.

Your Committee respectfully recommend that the National Academy of Photography be composed only of those professional photographers of the United States who personally create the design and arrange or plan the lighting of their productions; the subsequent work being likewise personally made or executed by their direction and subject to their control.

The proprietor or manager of a photographic business who has all this work executed by assistants is to be eligible to the two principal positions in the Academy only if his personal work is such as to qualify him.

We recommend that the Academy when completed should consist of four classes: Academicians, Associates, Fellows, and Honorary Members. Their rank, position, class, and the number of members we advise to be as follows:

1. Thirty professional portrait and three professional landscape or seascape photographers, who are to rank as Academicians. After twelve of these professional portrait photographers are elected, either as hereafter proposed, or by some other plan that may be decided upon, equally effective and just, they should be invested with full authority to frame their own constitution and by-laws for their self-governement and to carry out any educational or other work that they may undertake, subject only to such suggestions as the Photographers' Association of America may request; these suggestions to be embodied in an instrument in writing drawn up by the Congress of Delegates and approved by our Executive Board, as provided for in our constitution and by-laws. All authority in the Academy to be vested solely in the Academicians, each new member admitted to possess equal rank and authority, except as they may devise to the contrary in the election of their officers, council, etc.

Further additions to the Academy are to be made by the Academicians, who are to select from the associate body at least one or two members each year, until their ranks are filled.. Vacancies occurring are to be filled within one year. The initials, N. A., National Academy, or N. A. P., National Academy of Pho-

tography, are *suggested* as being proper for these principal members of the Academy to use.

2. The Associate Members to be unlimited, and also to be composed of professional photographers. The first members to be selected by the members of the P.A.of A., in open convention, a proposed plan for which is hereinafter recommended as being fair to the leading photographers in our country and also promising in results. Further additions to this class of members to be made by the Academicians. They are to appoint each year at least as many associates as they create Academicians. After their own ranks are filled, they are to continue making occasional appointments of associates, as there may be those who can qualify for same. The associates rank next to the Academicians. The initials A.N.A. or A.N.A.P. are suggested for this class of members. Any authority, duties, etc., given to the associates to be determined by the Academicians, unless otherwise decided upon.

3. The Fellows of the Academy also to be unlimited and not confined to photographers. This class of members to be created for the purpose of honoring those who, by funds contributed, would enable the Academicians to carry on such educational or other work as they may undertake. Acceptances of funds and appointments as Fellows to be made only by the Academicians, who are also to decide what special privileges should be granted them.

4. Honorary Members, to be appointed by the Academicians. These members would probably be composed of eminent photographers of foreign countries and of distinguished men and women of the other graphic arts. This, however, is mere guesswork on our part.

In connection with the above four classes, it would seem that the right to the use of initials designating membership in the Academy should be confined only to the Academicians and Associates, since they only are composed of professional photographers.

The General Plan of Election.

The general plan of election, hereafter described in detail, is quite simple, and is as follows:

1. A committee to make up a list of about 100 photographers, and to prepare a printed ballot from which our active members are to select 45 from this number.

2. This 45 are to vote *after* adjournment of this convention, by a mailing ballot system, for 12 of their number, who, when selected, are to be the first Academicians, the others remaining in the Academy as the first Associate Members.

After we have selected the 45 from this large number by this one ballot, our personal work as active members of the P. A. of A. is completed so far as any further voting for members of the Academy is concerned.

The evolution of Academicians from the body of 45 is, as to method, somewhat similar to what has been many times devised in the past, when it has been deemed advisable to obtain an expression of opinion from a body of persons residing in widely scattered sections of the country.

It is imperative, if we wish success to crown our efforts, that no taint or suspicion of irregularity should attend our methods of selecting the body of 100, and our election of the 45; so those members in accepting later can do so with full appreciation of the great honor conferred, without any embarrassing situations arising.

The above plan of this body of 45 selecting the Academicians, is much better than when done by direct vote of the convention. All the members of the body are at the time of voting removed

from influences which might possibly be brought to bear upon them in favor of or against any individual or set of men, and for that reason the expression of their will is the result of their convictions. There is a sort of Free Masonry and intimacy existing between the members of our more advanced class of photographers, who possess close knowledge and appreciation not only of their work, *but of other abilities necessary* to be considered in deciding who of their number should serve as Academicians, as being most likely to conserve properly the interests of the Academy.

The information which our full membership does possess, however, fully enables us to select wisely 45 from a *carefully chosen list* of 100 most eminent artists. Some of us would select names of those about whom others may not be so well informed, but we are sure to decide upon 45 who are very well known throughout the country as photographers of the greatest ability.

Detailed Methods of Voting.—The first selection of 100 photographers and the subsequent election of the 45. The chairman of the Congress of Delegates of our Association to appoint a committee of seven of their number, who represent different sections of our country. Care should be taken that *no important section*, where a large number of our best artists may reside, should be overlooked in the appointment, especially so if such a locality should not be represented by delegates. If advisable, the chairman should increase the size of the committee, and if necessary, add one or two members from our membership who are not delegates. This matter to be decided by the Chairman of the Congress.

This committee should meet as soon as possible, and select, through consultation, 100 persons throughout the country whose work is of such a high character as to entitle them justly to be voted upon for this purpose. In this selection, the committee should be instructed that they are not by agreement to formulate any plan where so many are to be chosen here, so many there, etc., with the object in view, that all sections of the country should have an apparently equal number of persons represented. They should, however, select only such artists, men or women, who they know make their own work, and this list should include *only professional portrait photographers.*

It is well known that certain parts of the country contain the *majority* of our leading artists, due undoubtedly mainly to the large populations which draw them there. This should not react unjustly to skilled artists of equal ability elsewhere, and if those selected could possibly be chosen widely scattered throughout the country without loss in maintaining the highest possible standard, it would, of course, be much better. A better man should not be turned down in the committee conference to put in an inferior one, *wherever he may come from.* As these men are to be selected by the *full committee*, no individual blame should be given to any of the committee because some especial member's name did not appear on the list.

This list may run down to 85 men, but it should not be much over 100, else it be too confusing. If some should be neglected, there is a provision in the report for future attention to other worthy men and women eligible for the Academy.

The committee's report is to be handed back to the chairman of the Congress, who is personally to see that the full body of delegates in rejecting any names should do so for valid reasons, and in their increasing the number by nominations, made by the delegates, that it be carefully considered (decision upon which matter is to be reached by majority vote) as it is not the intention to appoint a committee to do a thing and

then render its work ineffectual, since some proper reason which came up in the privacy of a careful committee may have caused the omission of certain names. The chairman is also to see that full justice be done to the committee themselves in their open session, who by serving on the committee may possibly have caused the omission of their own names, which might otherwise have been on the list returned.

This list, as finally passed and approved by a majority of the delegates, should be printed on a ballot, with the name of the city or State. Opposite the name should be a check space, and at the bottom of the ballot there should also be a place for the voter's name.

These ballots, containing practically 100 names, should be given to our full *active* members at the *opening* of the next morning session, after repeated public notices of this intention have been made, so that there may be a full attendance from those desiring to take part in the voting. Each active member is entitled to check 45 names only from the list (for fear of invalidating the same) and is to sign his name at the bottom, where there is a printed declaration that he is an active member of the Association and privileged to vote.

These ballots, thus voted upon, should be passed to the First Vice-President of this Association as soon after the *end* of the session as possible, each voter being placed upon honor that he will not solicit votes for or against any man or set of men, nor in turn entertain any requests of like nature. He is expected to vote to the best of his knowledge or belief. All of the names on the list to be voted upon having been approved by the Congress of Delegates, who represent all associations, *are thus vouched for by them* and entitled to fair treatment.

This, in the opinion of your committee, is the most critical point in the creation of the Academy, the cornerstone upon which the whole structure rests. If questionable methods be here employed, the Academy will be shorn of its lustre, and when it comes to the final evolvement in creating the Academicians and Associates, there would probably be many declinations to serve, and what would an Academy amount to anyway, if it were not represented by our best men?

Every man or woman elected to the Academy has a right to expect and to demand that this election be pure and unsullied. If such be the case, they will be only delighted to accept the honor, and welcome with the glad hand every other member whom you may elect.

The whole executive board, and at least some members of the committee, are to count the ballots, the President announcing in open session the names of the 45 who are elected by receiving the most votes. We question the advisability of giving the exact number each of the 45 receive, even it if satisfies our curiosity.

If tie votes should prevent the election of the exact number of 45, the nearest selection to that number, be it greater or smaller, should be declared to be the result of the vote.

The Treasurer of the Association shall decide if any of the names at bottom of ballot are not entitled to vote, and if not, after investigation, the vote should be thrown out and the member asked to explain.

The above decides the election of about 45 men and women, from which list the first Academicians and first Associate Members are to be created.

Detailed Method of Voting for Academicians and Creation of Associates by Mail Ballot System.

Following his announcement of the 45 persons who have been thus elected, the President of this Association is to

issue a call for all those who may be at the convention to a temporary meeting, at a certain time and place to be appointed by him, for the purpose of arranging for a conference between themselves.

Those who attend this conference will probably appoint a chairman and secretary. Your committee recommends that they appoint a committee of their own to attend to the details of formulating a mail balloting system, and would suggest that it be effected in the main on the following plan:

The committee to get up a printed list containing their full names and mailing address, with a check space at side, and signature space at bottom. They should prepare an *explanatory printed letter sheet*, describing the sending of the ballot, the method pursued in the election of the 45, for the purpose of evolving from this number the first two classes of members in the National Academy of Photography, which is to be created through the Photographers' Association of America.

In addition there should be a printed or typewritten copy of the conditions and instructions imposed by this Association in authorizing this Academy, to which their signature of acceptance is requested, in making them eligible for election, by such of their number as *do* accept these conditions.

The ballot, the letter of information, and the paper they are to sign for the interests of the P. A. of A. as an association, are to be mailed to each of the 45, by the committee acting for this body, who are to request that they check 12 names from the list, whom they may favor for Academicians. They should also request that no member of this body give a personal vote; in order that the 12 finally selected should be chosen by other votes than their own.

These ballots we advise to be returned within one month after their being sent (unless some one of the 45 is out of the country) and enclosed in printed envelopes addressed to the President of the Association and sent by registered mail. The President thus acknowledges the receipt of each ballot without opening it at the time.

When all the votes have been received, the President is to tabulate the result of the ballot, and before a notary make a declaration of the number each received, the number and names of declinations, if any, and is to send the ballots by mail to that Academician who it appears received the largest number of votes, to remain in possession of the Academy. If such member had declined to sign the paper as requested by the P. A. of A., then the ballots are to be sent to that one receiving the highest number among those who did so sign.

If on account of tie votes, or for any other reason, the 12 are not all chosen, then those who are should select the remainder required from those who were most nearly elected. The President is to send a copy of the result of his tabulation and the list of declinations to each one of this body.

The 12 thus elected are to be the first Academicians.

The remaining number are to serve as the first Associates of the Academy. Upon notice by the Academicians, or by his own knowledge if the full number be legally completed at the time of his receiving the ballot, the President of this Association is to send, duly signed by the Executive Board, a printed certificate authorizing the creation of the National Academy of Photography through the Photographers' Association of America.

The ballots creating the body of 45 are to be kept by the Secretary of this Association.

Finally, we recommend the payment of $100 to the Committee of the body of 45, who are charged with the final

work in organizing the Academy, to defray the expenses incurred by them in printing, postage, etc. We also think the bill for the certificate authorizing the Academy should be thus paid for, and the bill of the President of the Association for his expenses in the same connection.

The balance of funds, if any, after these bills are paid, with vouchers, for money expended, to be turned over to the Academicians.

Respectfully submitted,

CHARLES WESLEY HEARN,
G. W. HARRIS.

Mr. Harris: Mr. President, I move you that this report be referred to the Congress of Photography, and that they report to you their suggestions.

Mr. Hayes: I second it.

Mr. Towles: I move an amendment, that the report be accepted, adopted, and that it be referred to the Congress for its working out.

Mr. Lively: I had the honor to act on this committee for four years, and I have listened very attentively to this report of Mr. Charles W. Hearn. He deserves a great deal of credit for having formulated a plan on which we can establish this photographic Academy, which we need; but the weather is very hot, indeed, and it is getting late, and it seems to me that it would be wise now to postpone this matter and refer it to the Congress, as suggested in the first motion, and they to turn it back to us at one of our future meetings tomorrow.

Mr. Harris: I think the rational way out of this is to act on this first motion. We have got the report there—I myself would like to see it discussed very thoroughly, and have a chance to read it over. With the consent of the seconder, I will withdraw my motion, and make Mr. Towles' the original motion.

Mr. Hayes: I consent.

Mr. Towles: I made a motion that the report be accepted, adopted, and referred to the Congress for the working out.

Mr. Abel: The words accepted and adopted, are not what he wants; he means, that what Mr. Hearn suggested there be adopted by the Association. The adopting of the report, and the adoption of what it suggests, are two different things. We don't want to adopt what he suggested, we want to adopt the report.

Mr. Hearn: I would like to have someone with a good loud voice explain just where we are at at the present time. We have had enough trouble with this Academy in the past, and don't want any more. If we are going to do anything, we want to know what we are doing. Now I wish to have that motion thoroughly explained. Mr. Abel himself has said something different from what I understood Mr. Towles to state. Now let Mr. Towles give consent to what Mr. Abel says, and see if that is it.

Mr. Abel: What Mr. Towles means is that this Association shall accept this report; that the report embodying his suggestions be accepted, and that the Academy, having been passed by your people and adopted, be passed upon by the Congress, so that the necessary action should be taken. If you vote "no," that puts the Academy out of the question. Carried.

Mr. Abel: Mr. Hearn has been to a great deal of labor to get this report before the Association, and we owe him at least a fair vote of thanks before we adjourn. Adjourned.

WEDNESDAY MORNING SESSION.

President: The meeting will come to order. I will appoint Mr. George Holloway as sergeant-at-arms to keep order at the entrance of the lecture room. If there are any past presidents in the room, they will please come forward and take a seat on the stage.

President: The next thing on the programme is Secretary Evanoff's report.

PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

In account with J. C. Evanoff, Secretary		
Total received for space, .	$3272.00	
Total received for advertising	945.00	
Total received from old account	12.00	
Paid to L. A. Dozer, Treas.		$4229.00
	$4229.00	$4229.00

President: Gentlemen, after hearing this report, what shall we do with it?

Mr. Medlar: I move that it be received and adopted. Carried.

President: The next is Treasurer Dozer's report:

Receipts.

Cash on hand Jan. 1, 1909	$4698.74	
Received from memberships and dues . . .	4054.50	
Received from sale of ladies' pins	96.50	
Received from advertising in *Annual*	955.00	
Received from sale of floor space, Rochester convention	3262.00	
Received on old account .	12.00	
Total		$13,078.74

Expenditures:

Paid out on Vouchers Nos. 842 to 932, inclusive .		$6595.52
Classified as follows:		
Commission of Secretary and Treasurer . . .	$577.25	
Officers' expense account, including hotel, railroad fare, postage, express, telegrams, etc., for all officers for entire year .	1676.11	
Printing	1646.65	
Prizes	125.00	
Stenographic work . .	117.15	
Instruction and entertainment, including School of Photography and Lectures	897.31	
Information Bureau . .	122.16	
Convention Hall . . .	1112.89	
Membership buttons, etc.	321.00	
Net profits from 1909 convention	1784.48	
Cash on deposit to credit of Association Jan. 1, 1910		6483.22
Total		$13,078.74

Treasurer: I have made just a little more elaborate report than is customary, as I think the members of the Association are interested in knowing just where the funds come from, and how they are distributed and where used.

President: You have heard the report. What shall be done with it?

Mr. Giffen: I move that the report be accepted and received.

Seconded and carried.

President: We will next hear from the Auditing Committee which was appointed by your presiding officer to audit the books of our last meeting. Mr. Lorrimer is chairman of that committee.

Mr. Lorrimer: As chairman of the Auditing Committee, with Mr. Evanoff to help me, I can report that we carefully audited the books and accounts of the Secretary and Treasurer, and we found them to be absolutely correct and very neatly kept. The accounts of this Association are kept in a manner that you should be proud of.

President: We have our good friend, Ex-President Barrows, with us this morning, and I know you would all like to have a few words of greeting from him.

Mr. Barrows: Mr. President, Ladies, and Gentlemen, my Friends—It indeed gives me great pleasure to stand before you this morning and give my hearty approval to the National Association. To me, as I have observed in my short walks through the hall this morning, during the exhibits of the pictures, my time being occupied as a delegate in the Congress of Photography, I really believe the National Association moves on. I never in its history have seen so fine a gathering of people, nor as well equipped and finely decorated a hall as the present. More credit is due to the National officers for their untiring efforts to give you an onward march for the National. We are just getting our feet planted firmly on a rock, and we are going onward

and not backward. The time is well occupied this morning with other speakers, and with my hearty approval and best wishes to you all, and also a good morning.

President: Our next order is New Business.

Mr. Stein: (Milwaukee) Mr. President and Gentlemen of the Association—I have a letter here, and it is so directly relative to the remarks I presently wish to make, that I think it will admirably serve as a preface. With your permission, I will read it now.

Photographers' Association of America, in Convention Assembled, Milwaukee, Wis.—Mr. President and Gentlemen: Early in 1905 a Copyright Conference was called by the Librarian of Congress at the suggestion of President Roosevelt, for the purpose of formulating a new Copyright Law. Authors, musical composers, sculptors, painters, book publishers, print publishers, lithographers, architects, and many other interests, took part in this conference, two delegates from each, and all of them being represented by eminent counsel. The Photographers' Copyright League of America was also represented by two delegates, but its treasury was empty. Realizing the crisis which threatened the status of the profession in the eyes of the law, our Executive Committee issued an appeal for money to the photographers of the country—which was followed by contributions from seventy-two of our members. This created the nucleus of a legislation fund, which your Executive Board voluntarily increased by a contribution of $500.

To a great many photographers copyright is only a name, an abstraction. They have never thought much about it, because they have never used it and they don't quite understand what it means. This is, however, sure, that the dignity and legitimacy of every vocation require its protection under the law—and it is safe to say that without copyright protection and recognition our business of photography would have no legal standing, no rights that anybody would be bound to respect. Our work would be at the mercy of every piratical publisher.

During the four years of the meetings of the Copyright Conference and of its sessions with the House and Senate Committee at Washington, brazen attempts were made to deprive photography of every vestige of ownership rights in its productions. The American Newspaper Association even went so far as to present two long briefs arguing for the entire abolition of photographic copyright as far as newspapers were concerned, and had our delegates not been on hand, backed up by able counsel, they would have succeeded in abolishing our protection.

The new Copyright Law is now an established fact. In many ways it is a great improvement over the former law. The method of taking out a copyright has been simplified, the punishment for infringement has been made more logical and effective.

The unused balance of our legislative fund is now being returned, *pro rata*, to the various contributors.

Thanking you, therefore, in the name of the Photographers' Copyright League of America for your quick comprehension of the danger that threatened us all, and for your generous contribution, and in the hope that every representative photographer will become a member of the League, thereby giving it the strong moral backing of numbers and enabling it to better guard photographic interests, I take great pleasure in enclosing our Treasurer's check for $190, being 38 per cent. of the amount you contributed.

Very truly yours,

P. J. FALK,
President.

Now this $190 has, so to speak, dropped out of the skies. The fund of which the money was a part was contributed voluntarily, and if the unused balance of the Legislation Fund had been applied to general League purposes, I don't believe that a single contributor would have felt aggrieved or dreamed of raising any question concerning it.

The administrators of the fund, however, have assumed it as possible that some of the contributors had only the Legislation Fund in view, and so have decided that it should not be applied to any other purpose without the full knowledge and consent of all concerned.

Now, to judge this matter rightly, you want to look beyond the money end of it. There is a whole lot more significance to this check I am holding than $190 cash. It carries a message of self-sacrificing effort and zeal; of long and labor-laden days and brain-racking nights of toil, filled with sincere and strenuous struggle for the good of the cause; of the abnegation and steadfast devotion to principle of a few willing and untiring workers for the achievement of a result by which we will all profit.

Copyright protection for our work we have long desired, but some of us had come to think it was like Ingalls' definition of purity in politics—"a beautiful but iridescent dream." So it would be still, if it were not for the yeoman service these men have done. They, at a personal cost that some of us know, but many of you will never wholly realize, plucked this thing out of the cloudland of theory and established it as a veritable and demonstrated fact, and to them and their work it is mainly due that our profession is assured, from this time on, of a standing that enables us to deal with editors and publishers on a surer, fairer, and more equal footing than we ever could before.

And it was two men in particular—B. J. Falk and Pirie MacDonald—who bore the chief brunt and burden of the fray, and it is to them that our chief thanks are due. And let me tell you, that "brunt and burden of the fray" is no mere figure of speech, either, for there was some mightily lively scrapping at Washington before this thing was put through. It was not the sort of scrap they had at Reno, and they did not bring away any black eyes or a quarter of a million dollars in gate money, but they had to fight for all they were worth all the same; and, what's more, they brought home the prize!

From pure altruism—contented self-sacrifice if it furthered the common good—these two men toiled hard and long. Day after day, night after night, for weeks, for months, for years, they spent time, labor and money to bring this thing about. With no thought of present return, or any prospect of adequate return from any future profit, these men gave freely and without stint of the best that was in them, that the profession at large might reap an assured and lasting benefit.

Shall we let the accomplishment of such an end pass unrecognized? I don't think you would wish to, and it is in that belief that I have prepared, and now beg to submit, the following resolution:

WHEREAS, The Photographers' Copyright League of America was established to secure and protect photographic copyrights, to suppress piracies, and generally to promote the interests of the profession; and,

WHEREAS, The most material factor to the attainment of these purposes was secured by the inclusion of photographs in the copyright law of 1909; and,

WHEREAS, That inclusion and the protection it affords to the photographic profession, is entirely due to the persistent effort and self-sacrificing energy

of B. J. Falk and Pirie MacDonald, to whom the cordial thanks of the photographic fraternity is lastingly due, therefore, be it

Resolved, That the aforesaid B. J. Falk and Pirie MacDonald be made Honorary Members of the P. A. of A.; and, further, be it

Resolved, That these resolutions be spread upon the minutes of this organization, and that an engrossed copy for each be prepared at the cost of the Association and presented to Mr. Falk and Mr. MacDonald.

Just a few words more before I conclude. I haven't done with this matter of the check yet. The treasury of the League is empty. It wants—in fact, it imperatively needs—money for many purposes if it is to retain the value it has already shown as a factor in advancing our professional interests. With money the League is a living, active force for betterment; without money, it is nothing but an empty shell—a name and nothing more.

Now, the first and most important step to keep the League what it ought to be is a good member roll. Every photographer present at this convention should see that not only he, but every professional friend, comes into the League. If every man here would join, right now, and agree to pay a dollar a year, we should have a numerical and financial backing that would enable us to do a lot of things that need doing but cannot yet be done for lack of means. We could establish a Legal Aid Bureau, which could furnish free legal advice to the members in any question pertaining to infringement of copyright; we could keep properly in touch with things at Washington in the possible event of any parts of this new law needing amendment.

In all sorts of ways the League can be a power, if you mean it to be; but without your support it must always fall short of its possibilities. The League is doubly as strong in whatever it does, or tries to do, if it knows that *you* are back of it. We want the men—*you*—and we want your money—a dollar a year. It is not much to ask, is it, in view of what you get for it? To you, individually, it means at most a small sacrifice. To us, collectively, it means a great gain. Won't you do your share? I make, right here and now, a personal appeal to every one of you to enroll your name and plank down your little round dollar before you leave this hall.

And as regards this check—just observe how I keep hanging on to it—I want to move another resolution:

Resolved, That the check for $190, returned by President Falk as a 38 per cent. refund from the Legislation Fund, be returned as a contribution to the General Fund of the League.

Mr. President: I ask for immediate action upon the motions I have made.

President: Gentlemen, you have heard the report. What shall be done with it?

Mr. Schnieder: I know of no two men who have done more for our profession than B. J. Falk and Pirie MacDonald. If we were familiar with our previous copyright laws, those of us who are thoroughly familiar with the copyright laws as they today stand, and know the improvement and the protection that we now have and that we did not have, and with the knowledge that these two men have done the work untiringly, and spent lots of time and money to bring about a copyright law such as we have today, I think it is perfectly due that we should elect them as Honorary Members of our Association, and I second the motion of that resolution for the election of them as Honorary Members.

Mr. Hearn: I would like also to have a few words on this. I have personal

knowledge, also, as well as Mr. Schneider, of the tremendous sacrifice that these gentlemen have taken upon themselves —left business and everything else to look after the copyright laws. I would like also to second that, and also to second the resolution to return that fund to them as a contribution, back to start a little surplus to that work, in case anything else comes up.

Mr. Barrows: I just want to add my little mite in behalf of this motion. It was during my regime as Treasurer, and Mr. Hearn's turn as President, of the Association, that this money was given over to the Copyright League. You all know my peculiarities to hang on to the funds. They asked for $1000. Some of the Board were willing to expend it. I rebelled, and we gave them $500. I see now the wisdom of my giving $500 instead of $1000, as we have $192 more than was needed for the time; and I, too, would like to see that Mr. MacDonald and Mr. Falk, two of our foremost American photographers, who have worked assiduously in our interest, should be made Honorary Members in recognition of these services, and also that this money should be returned to them for their future use. I second the motion.

The motion prevailed for making Mr. MacDonald and Mr. Falk Honorary Life Members of this Association.

President: The second motion before the house, a motion which has just been seconded, is that this $192 be returned to the Copyright League of America. Are there any remarks?

Mr. G. G. Holloway: If I understand, this balance is to form the nucleus of a fund, and have a committee to whom photographers may write at any time for assistance?

Mr. Stein: The idea is, everyone becoming a member of this Association, the Copyright League of America, which is secured for the sum of one dollar —if they wish to donate more they can do so. When anything comes up in the copyright matter, they may consult the attorney free of any expense, so that no infringement can come in our laws, and he gives you advice. Should you have a case that you wish to turn over to him, then you give him that case, and when he wins it he will give you, I believe, 75 per cent. of the gross, retaining 25 per cent. for the expenses which the League incurs. You get 75 per cent. net, and you have no attorney fee at all.

Mr. Holloway: We oftentimes, many of us, have just such things happen. I think it is one of the best things that has been before the house, and personally I am heartily in favor of it. Some time ago I received a check for a rebate of 95 cents. My only regret was that he did not keep the 95 cents and put it into some fund.

The motion prevailed.

President: Is there any other unfinished business? Any other new business? I have one other announcement, as there is no other business, one other announcement I would like to make. A photograph of the Indiana people will be taken in front of the hall at 3 P.M.

The next thing on the programme will be in the hands of the Ladies' Federation. I will now call its President, Miss Mary Carnell, to take charge of this meeting, and I want to say that Miss Mary Carnell and her assistants have been a wonderful factor in making the success of this meeting. They have worked hard, and we feel that we owe the success of this meeting very much to them. Miss Carnell, please come forward.

(Continued on page 364)

Commercial Photography

By James Huntington, Brooklyn, N. Y.

By The Camp Art Company, Jamestown, N. Y.

By The Camp Art Company, Jamestown, N. Y.

By The Camp Art Company, Jamestown, N. Y.

Portraits of Men

1. A Profile 2. Woman at Mantelpiece

3. Madame Simone

Illustrating Sidney Allan's Article

4. Mother and Daughter
5. My Grandmother
6. Mlle. Jeanne Rolly
7. Mme. Edmond Rostand

Illustrating Sidney Allan's Article

8. Studying Prints 9. Mme. L. and Daughter

Illustrating Sidney Allan's Article

MASTERS IN PORTRAITURE—CARO DELVAILLE

BY SIDNEY ALLAN.

CARO DELVAILLE is one of the fashionable portrait painters of Paris. Thirty-four years old, he has already made a reputation for himself. Well-dressed society women are his specialty, and he lays unusual stress upon the depiction of gowns. His portraiture, in a way, is as typical of French art as Kaulbach's (in the February number) was of German art. Delvaille is more up-to-date, but they both try to please their clientele, and prefer to paint a popular picture rather than one that would appeal onlyto a few.

And yet Delvaille's treatment is quite out of the ordinary. He has the peculiar gift of giving to each portrait a decided pictorial quality. He neglects the face at times to an alarming degree; but, as character delineation of a figure (and he always paints the entire figure) consists of the attitude and general outward appearance as much as of facial expression, he generally succeeds in getting an interesting resemblance. He is particularly fond of peculiar, at times rather eccentric, poses; but they possess the merit of being realistic. They are not imaginary, like those of Alexander. Great care is bestowed by the painter upon accessories; he nearly always depicts an interior as background, and introduces odd pieces of furniture, bric-a-brac, tableware, etc., with remarkable facility. The gowns his sitters wear are selected with an eye for pattern, as well as line and contrast.

"A Profile" (Fig. 1) is a good example of how a decided flower pattern may be used as the leading motif of the composition. The pattern dominates the whole picture. It may strike some people as being rather awkward—one-sided conceptions are apt to impress us in that way. The plane produced by the patterned gown was exceedingly large and almost as unwieldy as a single flat tint of similar size. The only way to render it interesting was to arrange it as a silhouette in striking contrast with the background. This the painter has done by selecting a profile view. It would have been impossible in a full front view. But the lines of the silhouette are too angular and harsh, and its shape too extravagant, to produce an agreeable impression. One must, however, admire the artist's skill in balancing the bulky triangular shape with the rectangular division of the background, and also the way he utilized the hat. It is a very ordinary and by no means beautiful product of the milliner's art, but without it the composition would have fallen to pieces. The silhouette of the figure needed some curious shape to counteract its irritating texture. The hands and the tip of the shoe are well placed. The face is expressionless.

Delvaille seems to have a special talent for utilizing picture frames in his backgrounds. Figs. 4 and 5 are excellent object lessons in that direction. As soon as an elaborate background is used with a female figure it is the rectangular division which counts. The contour and folds of a woman's gown generally run in curves, in undulating, zigzag fashion (viz., Figs. 2 and 9), and they need horizontal and vertical lines to balance them. Fig. 2, "Women at Mantelpiece" proves the truth of this argument. The shape of the figure is beautifully complemented by the rectangular line arrangement of the fireplace and mirror. If the figure would straighten out and stand more erect, the fireplace would become impossible as a background. The contrast of dark and light

detail has been well handled in this picture. It seems to be a favorite method of the artist. We also notice it in Figs. 3, 7, and 9, while in Figs. 5 and 8 we have the juxtaposition of large black and white masses.

The portrait of Mme. Simone (Fig. 3) offers a particularly interesting problem. An oblong of the relation 4 x 6 is rarely used in portraiture, and I have rarely seen the space as well filled as in this instance. It is not merely the reclining position and the simple arrangement of settee and cushions which accomplished this, but the embroidery on the bottom of the gown. The vivid pattern made it possible to spread the skirts to their fullest extent and to lose the straight line of the settee. The upper right corner looks empty, the dog was not quite sufficient to fill it. If the woodwork in the background were more distinct it would no doubt improve the composition. The figure is graceful in line and correctly foreshortened.

Delvaille, not unlike Col. Marceau, has a strange predilection for costly and elaborate gowns. The dressmakers seem to furnish the principal material for his pictures. He frequently overdoes it, as in Figs. 4, 6, and 7. There is no particular charm in the monotonous repetition of the minor folds of a white dress. I would like to see it treated with a little more breadth. But I suppose some women are as proud of their new dress as of their face, and the texture of material, after all, offers rare opportunities for picturesque exploitation.

Fig. 7, the portrait of Mme. Rostand, the wife of the author of the much-lauded "Chanticleer," is one of the few standing figures Delvaille has painted. He generally prefers seated figures, as a woman's body and gown can assume picturesque attitudes more easily in that position. I do not consider it particularly successful. There is too much empty space around the figure, or, what is more to the point, the figure is too vertical in tendency and occupies too large space for a blurred background. The white strip of the wainscoting across the picture is decorative, but too abrupt to help this particular composition. The gown as a gown is well handled (an excellent portrait, indeed), but its funnel-like shape reminds one of the show windows of department stores.

We now come to some more elaborate composition. Fig. 4 is a fair attempt to express sentiment in a portrait. The mother's attitude is natural enough, but the child looks rather indifferent. The pose is stiff and lacks vivacity. The drawing in this picture is rather undecided. If the lines had been more accentuated, as in Figs. 2 and 9, the impression would be a more favorable one. There is too much white in white. The hair, the shoes, and the dark bow and ribbon do not furnish a sufficient contrast for the innumerable white folds. The background is indifferent on the left but excellent along the upper margin. The frames are grouped in such a way as to make a harmonious combination of shapes with the two faces. The effect of the hand holding the book is entirely lost.

Fig. 6 is more precise in line. The background is masterly, but the obtrusive pattern on the woman's dress spoils the arrangement. No fault can be found with the pose; it shows the figure to good advantage and fills the space as well as a figure of diagonal tendency usually does, but its light tonality jars with the subdued and yet so clearly shaped tonal values of the background. The way the settee is placed, and how the various shapes of the distant wall have been made effective should impress every home portraitist. I hardly believe that Delvaille has any superior in the skill of utilizing modern interiors for unconventional portrait backgrounds.

It is an odd-looking child that we find depicted in Fig. 5—"My Grandmother." It almost seems that it is merely used as a color note, which finds an echo in the lace cap and cuff of the old woman, the handle and lace of the parasol, the white vase and china figure on the bureau, and the margins of the framed picture. The figure of the grandmother furnishes the leading point of interest, but her bulky dark form gains its significance largely by the white shape of the youthful figure beside her. The spotting and silhouetting of dark and light shapes against a middle-tint ground (furnished by the wall and floor of the interior) is a masterpiece of composition. Cover up some of the white spots and see how necessary each one is to bring about the harmonious results. It is a composition in three tones, each tone is carried out by several planes, and they complement each other in such a way that they produce a play of black and white that, despite its vivacity, is highly pleasing to the eye. It is one of the most ambitious efforts of the painter, and although he did not scale the same heights as Whistler, in his "Mother," he came quite near to them. The sympathetic face of the old lady is a good character study.

The delineation of children does not seem to be one of Delvaille's strong points. They fail to convince us. Also, in Fig. 9, the child furnishes the only discord in the otherwise charming group. Luncheon is over, and the child has come for a moment to rest in her mother's arms before returning to her play. It is an incident well worth depicting. The pose is there, but the true sentiment is missing. It is a clever arrangement, exceedingly clever in this instance in the handling of the dark trimming and the parallel folds of the white gown. There are, perhaps, too many of the latter; but the monotony of Figs. 4 and 6 has been avoided by the dark scarf and the clear outline of the arms and the skirt. The luncheon table furnishes a valuable accessory, as it helps to fill the space in a rather unusual way. The composition would be much more ordinary without it.

Fig. 8 can hardly be called a portrait. It is a likeness of the painter's wife, but I do not believe that many ladies of fashion would have themselves portrayed in that unconventional manner. It is a figure study, and I include it only because it offers a most interesting example of diagonal line composition. The legs of the table are the only lines of a vertical tendency in the picture. There are no horizontal lines. Even the shape of the figure is of diagonal tendency, as in Fig. 6, but in this instance silhouetted against another lighter diagonal shape, *i. e.*, the carpet, which again is outlined against a dark diagonal shape. The print on the floor and the top of the table are of diagonal shape, and even the hands and the head are in diagonal apposition to the lines that surround them. I have never seen this problem solved in a more convincing manner.

Delvaille likes to experiment, to attract the beholder by unusual shapes, curious contrasts and line arrangements, and he has proven in his hats and gowns and pieces of furniture that nearly every object, no matter how unwieldy, or even ugly in itself, is capable of enhancement —or, in other words, of pictorial treatment.

EVERY portrait photographer who wants to do good work should endeavor to become to some extent a physiognomist, and the more proficient he becomes in the art the better he will be able to deal with sitters with whom he is not already very well acquainted. A good deal may be learned by comparing with the sitters themselves the portraits that are considered to be good likenesses.

(Continued from page 352).

Address by Miss Mary Carnell, on "Women in Photography."

A few days ago I received a letter from a very clever Western woman, in which she protested against the Women's Federation. She did not approve the idea of a separate exhibition of women's work, but wanted her picture hung side by side with those taken by men. "There is no sex in art," she quoted, and apparently believed. But, laying aside discussion as to the truth or otherwise of that well-worn aphorism, she overlooked entirely the fact that there *is* sex in business, and that the really and permanently successful business women are comparatively few and far between. Why? The reason is not far to seek. It is because there is among women very largely, as has been so often noted, a lack of solidarity, the "holding together," which distinguishes the opposite sex. Women are too new at the business game; they have not even yet been so many years freed from the frying-pan, the needle, and the blackboard—those three time-honored and eminently respectable fields of feminine endeavor. We are women of a different day; we have much to learn, and we must learn it together. What we need will not come to us while we stay self-satisfied, each in her separate corner; we must get together, compare notes, and talk things over, adding to the general store of knowledge each her bit of personal experience or discovery, whether in the dark-room, the office, or under the light.

Of some 1400 invitations sent out by the Federation to women photographers, over 100 responded. The result you see on the walls, and I hope you are as proud of it as I am. The proportion and the quality of the work is good, especially so for the first year. You will notice that among our members are exhibitors of international reputation. These women, knowing most, have yet felt the need of, and believed in, the idea of federation. How much more would the younger adventurer into cameraland profit by companionship and counsel, in the new country in which she is going to make her living! That there are still so many women who must be awakened to their needs and ours proves conclusively how timely and how necessary is our associated movement.

Our first steps have been most successful. Behind us has stood the National Association, with generous encouragement and substantial aid. Our officers have been devoted, sacrificing personal interests repeatedly. Members have taken an active and earnest part. There are members not able to be present with us who have sent letters expressing sympathy with our purposes, and their support. There have been many interesting opinions and points of view. We welcome such letters. We want to know your special outlook, with its successes and troubles, and you must come to realize the difficulties of other women and to understand and to sympathize with them.

Through this mutual understanding of our common aims and hopes and the problems which women meet, some through independence and more through necessity, have become working factors in the business world, we shall build up a compact and vigorous organization, through which we shall be able to compass much which we could never accomplish singly.

It is through work that we are enabled to meet our responsibilities, capable work, into which we pour our energies of mind and body—work which is needed, without sex. As is marked achievement in any field, work is our refuge in time of trouble—our castle of defence—and if we take it rightly, a strong and abiding joy.

The women's exhibition held this year for the first time has been an object lesson of worth to all. The purpose has been (and this cannot be too strongly emphasized) not to challenge comparison with the men's work. We are not seeking to foster rivalry and stir up emulation in either sex. We cannot in the nature of things escape a certain amount of critical comparison, both to our advantage and otherwise. We feel ourselves, and we hope others will note, that our impulse and acts have grown from other roots.

Our intention has been to strengthen this work ourselves by a realization of the work we have done as women. It is only a beginning. We can point with pride to the excellent impression made by our collected works on exhibition, not in portraiture alone, but illustrative and decorative work, the things women are doing in photography; to our improved method of hanging prints, of many new members for the National Association; to our not very easily rolling circle, which, however, has been an inspiration and help to most of the members; to the class in composition conducted by Mrs. Kasebier, and to the very helpful illuminative talk and personal criticism that will be given by Miss Lena McCauley.

We have gained a good foothold; shall we keep it, and go forward? The matter lies in your hands.

President: I have the pleasure of introducing to you Miss Lena McCauley.

The Art of the Hour, by Lena M. McCauley.

Photography is the living art—the art of the hour, the art of today. It is the latest child of the pictorial arts and the art most concerned in everyday living. We can think of no phase of human activity in which it has no part, for it is an aid not only of pleasure, of beauty and decoration, but it is an important factor in literature, in science, in the manufactures. The surgeon depends upon the camera; the astronomer, the microscopist, use it to extend their vision and to record mysteries and discoveries.

It has a long and honorable lineage, and if Charles Darwin were to live again, and to write a new chapter in the evolution of human intelligence, he could parallel its development with the unfolding of human observation and inquiry.

In recent years artistic photography, not fourscore years since the Daguerreotype, has advanced far beyond the stage of mechanical picture-taking with the camera, so that art museums recognize it among the fine arts, and it has achieved the triumph of exhibition of its prints on the same walls which display the paintings of the greatest artists of the age who not so long ago looked on the camera as a cold machine, bringing results altogether outside the pale of the beautiful.

Who can prophesy its limitations? Yesterday it had not reached the stage that we know; yesterday the *x*-rays were a miracle, color photography an impossibility. Today it is on a higher plane than one dare imagine, and its progress goes on and on.

It has the advantage and the disadvantage of being without traditions. Like electricity, it proceeds from discovery to discovery.

It has an honorable inheritance in the print of the old engraver—of duplicated pictures, printed from the metal plate. The modern photographer can learn much from them, for the Old Masters solved the problems of composition and light and shade.

Photography offers a wide field for the service of women. Woman is naturally an art lover, and takes kindly to instruction in art. The profession is not hedged by precedents, as is law and the medical calling. Woman enters on the same platform as men, and the avenues

of work being so varied, she is welcome, and may do the work best fitted for her without standing beside her stronger brothers.

The present exhibition of women shows how they have advanced in discrimination and taste. They take the initiative, a broad point of view, and succeed in their art. It is on a par with the best of the world. Many women exhibiting here have shown prints in London, Berlin, and Paris, and keep abreast with the newest ideas in the art.

Success for women depends on the woman behind the camera. She cannot have too much artistic training, too old masters, and a knowledge of the profession of the hour through journals and papers, she can keep in touch with all things that aid in her career. Rossetti has called a sonnet "a moment's monument," so an artistic photograph is a moment's monument—the concentration of artistic passion, the picture of a dream. The personality of the photographer will lead to interpretation, to subtlety, and those elements which combine to make a world of art.

Wednesday—Evening Session.

President: It gives me great pleasure to introduce to you Mr. George W. Stevens, Director of Toledo Museum of Art, who will give you an art talk.

Address by Mr. George W. Stevens, on "The Place of Photography in Art."

Mr. President, Rembrandts, Raphaels and Van Dykes—and your Wives: I am to make a small talk on the place of photography in art. You know this art business to the general public and a good many of us is a little bit hazy. When it comes to art, we are a good deal in the condition of the Irishman who stood in front of a plaster cast of the statue of Victory—the "Winged Victory"—in one of the sculpture galleries of a museum. You are familiar with it, with the "Winged Victory"—beautiful wind-blown drapery, and the headless and armless Victory. The Irishman stood in front of it, and he said: "What did you say the name of that was?" They answered: "It is the Victory." The Irishman looked and said: "That is Victory? If that is Victory, I would like to see the other fellow!" The real fine points of the "Winged Victory" were lost on him, and the real fine points of lots that is good here is lost on most people.

But "The Place of Photography in Art." I once gave a talk at a young ladies' school on Russian art. Well, I did not know much about Russian art. In the first place, I cannot remember the names of the painters—terrible names—and so I was rather up against it. But I had to talk on Russian art—they had been studying Russians and all that—so I said to them: "In this talk on Russian art I will go about it in another way. For instance, you take a child's game—the map of the United States cut up—the game which you have to put together. Now if we take all those cut-up States and put them together, and we leave Ohio out after we had put all the States together, the hole would represent Ohio, and would be an outline map of Ohio." I said: "That is the way I am going to tell you about Russian art. I will tell you about all other kinds of art, and the hole will be Russian art, and you will get a good idea of it that way." So, perhaps, I will wander about a bit, and the hole will be the place of photography in art.

Don't you forget for one moment that photography has a place in art, and a mighty big and important place; one of the most important places in the whole art endeavor of this day and generation. A great many people don't know that. A great many artists don't know it. A

great many photographers don't realize the position this method of artistic expression has taken. The world is waking up, and I hope you are all waking up —those of you who have not realized what an important position photography has assumed.

Some say: "Is photography art—just merely pressing a button and pulling a few strings and turning it out? There it is. Is this art?" Well, it is. Photography is a medium, just as etching is a medium; just as the pastel is a medium; just as charcoal is a medium; just as the pencil is a medium. It does not matter whether you make a monotype by daubing upon glass with your thumb and a rag and a stick, wiping out the high lines with a wet match, and then *painting* that on Japanese paper with a wringer. I have seen some wonderful pictures made by this process. E. L. Field, the great etcher, used to make monotypes. It does not matter what you make those pictures with—not a bit.

I studied with a fellow by the name of J. Francis Murphy, one of the greatest landscape painters we have. At this time they used to paint water colors with a steel, and you had to do it that way, leaving lines of white paper around the edges, and all your high-lights had to be left in; you could not cover up and pick out. When you wanted a high-light you left white paper. No one thought they could paint water colors unless they did it that way. Murphy taught me how to scrape it all on. Some times you had, with a blacking brush, to pull it together, and then take a stub brush and grind it down on an emery wheel, and when you get a nice stiff brush that will block color out, block out your high-lights afterward. That was a good way, a new way.

Everybody thought they had to paint thin water colors, until along comes Hopkinson Smith, and he puts it on thick with a big brush, like oil. People said: "That is not the way to paint water-colors; you ought to paint it thin."

So styles are changing, and your mediums are changing, and photography is one great medium. Even you, who work in various mediums, work in a different way, entirely different. I was in the studio of Carlson recently, and was surprised to find that he gives luminosity by painting his picture in whites and grays, as near white as he could get. He blocked the whole picture in foliage. His shadows were gray, his high-lights of white, and figures white. Then on top of the white he put transparent color. "Now," said he to me, "all the light that strikes into that white is reflected back from this transparent color; I get my brilliancy that way." Another painter will go about it by putting a little spot of blue, a little spot of yellow, on the canvas—many little spots. He stands off, and the eye mixes that blue and yellow, and the brain creates green, and we see a luminous quality of green.

There are a dozen ways of painting in oil. Oil is a good medium, a good thing; but no two men handle it alike—every man handles it in a different way.

So with the camera you have added to the medium. With it we have one more means of giving artistic expression. Some people say, What does the camera do? Well, the camera is a draughtsman. That is a very small part of our art, draughtsmanship; in fact, the smallest part of art. The camera is a draughstman, and it is not a good draughtsman. It is a little too painstaking a draughtsman. It registers what the brush or the crayon can leave out—that which is useless to the painter; but the camera grips it all and chucks it in. So where you are working with a camera it is harder to make a good picture than with a brush. Don't forget that. (Applause.)

The camera is a good tool; but with every tool you have got to have a mind

and a brain. How do you make a draughstman—this man who can draw a figure upside down, backward, in any position, foreshorten and draw it correctly?

He does very well in the public schools (not in my time, or your time, did they do this in the public schools; but they are doing it today, and doing it well); but if he has some talent he goes to the art school, and they put him for six months drawing a block hand, and a block hand is a thing that is not even a hand—just a square block; so that you see here the high-light on top process. They then give him a hand with fingers on it. He draws it, and draws to get the quality and values and shape, and he works on block hands for perhaps six months or more. Then he works on heads, casts, and at first they are only squared up—not a perfect model. He draws on these for a time, and finally, after he has worked for a year or two on casts, they put him in what they call the life class, and he draws real figures, live people, and finally, after he has worked on them awhile in New York and Chicago, he goes to Paris, and they put him on the anatomy, and then, after that, they put him in the life class. He puts in two years in Paris or Berlin. When he gets through he can draw a picture in any position you put it before him, and draw it correctly. He is a draughtsman, but he is not an artist.

He has put in all these years learning to draw and draw correctly. It is essential. You must know how to draw first, and I believe you will find 20,000 students in Paris today who can draw, but out of this 20,000 how many arrive? Every year two or three go into the Salon; every two or three years an American is awarded a second or third-class medal. Perhaps once in two years a picture is purchased from an American artist for the Luxembourg. You can count the honors on your fingers, and yet we know that every year there are 20,000 students studying in Paris—expert draughtsmen. What becomes of them? They never arrive. They never are artists. Why not? Because draughtsmanship does not make an artist, and the possession of a camera and the shooting of it at various things does not make an artist. There is something else, and that lies up here in the mind, that is running the game.

So don't be scared out when you hear that a man has had five years in learning how to draw. Ninety-nine per cent. of those who learn to draw are never heard of as time goes on. There must be something else, and so there the camera and the draughtsman meet. The camera is a perfect draughtsman; but that is the smallest part of art, the making of distinct things.

Someone will say: "Why, Nature is art. If you go out and copy Nature, that is art."

It is not; nobody thinks so who knows. Nature is a fine thing in its way. As Whistler has said: "Nature is looking up." But you could go out and have a snap at twenty things as they come along, or a man could go out with pad and pencil, or brush and canvas, and paint the first twenty things that he saw, and those prints or sketches might not make a picture of interest, although you put down a good map of what you saw before you.

So Nature is not art. Art is something else. We cannot on canvas imitate light—impossible; but we can do something else, something that is interesting, something that is good, something just as important, almost, as Nature itself; but it is not Nature.

I once knew an artist down in the Catskills, where he was studying, who had painted a good many years and never sold a picture; but his fault was that he would sit down in one of those valleys in the Catskills and paint all he

could see on that side, all he could see in the middle, all he could see to the right, it was all down on canvas as one big panorama. He got it all in,—a few houses, barns, some trees, a cow here and there, a man fishing. He was a good draughtsman; it was all correctly drawn, but it was a horrible one. One day they were going to have an exhibition in the Salmagundi Club. He was a member of that club. They were going to have a little thumb-sketch exhibit, and a member said: "Murphy, I am going to take one of your pictures; I am going to change it," and he cut a little thing out of the middle about six inches square, framed it up, and hung it in the club exhibit. It was sold. It was perfection itself, taken from a great mass of stuff which meant nothing.

You can go out with a camera and shoot about you, but that is not making a picture. So can a draughtsman go out and set all down correctly, and when it is finished he has nothing.

The laws which make a picture beautiful and satisfying, those laws are just as exacting and just as perfect as the laws that keep the planets circling in their flight, and just as beautiful. They are founded not only on such laws as those, but on optics and on psychology. I don't believe we realize what the eye, the physical part, has to do with our looking at a certain picture, or the desiring of it, or what the mind has to do with it—the subconscious part of us—which is a more important part than the conscious part. For instance, the optics of a picture or design. Our sight follows in some directions much easier than others, because the muscles of the eye are so constructed, and the design that flows in a certain direction is much more pleasing and easy to see than a design that goes any way, perhaps. And so with pictures, the eye goes in one direction with much more ease than it does in another, and some lines of the picture conform to these peculiar optical effects of the eye, and that makes it pleasing. The eye is not a perfect instrument, not as perfect as some of your cameras. The Greeks knew this. When they created their buildings, everything was done in curves, and to the eye the buildings looked plumb and straight. You know how they separated the columns and made them closer at the middle—the steps curved up six inches in the middle so as to look straight to the eye. So the eye is not a perfect instrument, and the artist has to correct that. In the psychology of art we know that if we place a fence across the foreground, on the straight lines of a blue field, there is no trouble for the eye to get there. The eye does not like to climb over the straight lines of a blue field, so the eye does not get in that picture at all. People walk through a picture gallery and many pictures they do not see at all. People ask, Did you see this or that? You answer, no. You never saw it, because you walked right by and looked at a picture that was inviting, and that is due to the element of psychology. Many pictures invite us in and we don't know it; a great many pictures keep us out, and we don't see them.

All these things enter into the making of a picture. The camera does not do that; the charcoal does not do that; the brush does not do that. It is this head that does it. You take the commonplace things and make wonderful things out of them. It is not draughtsmanship; it is not the camera. It is you. Now you have got it in the *first*, or you have not.

Most of us who are working along any line all our lives must have something in us, and if we have got it in us, we can bring it out of us, and I know, by looking at that exhibit upstairs, that it has been brought out in this case. Some people imagine that it is a different sort of an art of the photographer; that it is

a little different to work along these lines. I don't believe that. I don't believe you believe that, if you will think it over. It is often said, photography is photography. The general public think that photography is one thing and art is another thing. Knock that out of their heads as soon as you can; and they seem to think that there is some special road that photography can take to success, that has nothing to do with the road of the painters or other artists. Now the roads are all the same. You cannot in twenty years invent an art for you alone. Art is as long and as old as the world itself—a gradual, slow evolution. You pick it up like every other man picks it up, no matter what his name may be. You all have got to peg along after the same lines, and you have got, in a way, to follow fashion, not the fashion of the day, but the fashion of evolution, and we are constantly changing. And so it is art begins.

I want to run over briefly the development of art, because this development ceases here. The evolution: It is where you get your knowledge; it is where the painter gets knowledge.

Art is nothing new; as I said before, t is as long and as old as the world itself. After the cave man disappeared we find an early glimmer of art in Egypt. They did not know much about drawing the human face. They drew this in profile, and they put the eye in in full. They never drew face and figure from the front. They needed perspective. Figures were always going sideways, in profile—animals, chariots, everything drawn in profile—without illumination, foreshortening, or perspective. It is very difficult. So the Eygptian, to impress people, made things of gigantic size, and you will find them very satisfactory, with their limbs tied and their hands glued to their sides; but they are very big, great statues, enormous in size, and so they impress us merely by their size.

Then came the Greeks on the scene. They had as precedent these stiff, immovable figures of the Egyptians, and the Greek changed things very rapidly, too. Evolution is slow, but under the sunny skies of Greece things moved at a lively gait. At first the Greek had just as stiff, great statues—arms, legs, and feet tied together. The first thing the Greek did was to make one of his figures stoop forward, one foot come out six inches in front of the other. That was a great step forward. The next thing he did was put a smile on the face, and oh, such a smile! If you ever look at some archaic Greek pictures, look at that smile. It is a very silly smirk, and they put the smile even on to the dying warriors. You will find both victors and vanquished have their faces wreathed with smiles. They put them on, because it meant something more than really stone. The smile expressed the intellect within, or the soul. He was glad he found the smile and could place it upon this thing of stone. That was the first step as showing something of the inside of the shell of clay or shell of marble. It took a great many years to do that, even. Then, finally, the Greek commenced to raise the fingers, and finally got the idea of motion. Another hundred years elapsed and he showed the form underneath drapery—very crude, but something in the shape of a human being beneath drapery. Then he suggested drapery as being thin, and we see the form beneath that. He got motion, and finally, during the Parthenon period, the Greeks made beautiful sculptures, the like of which we have never excelled. They are our standard of excellence to this day. There was a period when it disappeared, and in the Dark Ages, and then the Renaissance of Greece, which was the age after Pericles, when the Pantheon and all those things were created.

Then we come into the Dark Ages,

from the fifth century on to our own Renaissance, and so during all the lives of countries and ages we have it divided up into the archaic period, a glimmer of art, then it slides back, and there is a rest, sometimes for centuries, and then the Renaissance, and then perhaps a decline again, as we experience things largely in our time. Now follows on the Renaissance—the fifth century to the twelfth century—everything of intellect was stilled. There was no art—nothing new. People thought of nothing lifting and ennobling.

It was not until the Renaissance in Italy, in the twelfth century, that things began to develop into what we call now modern art. For Cimabue was father of modern painters. All these 2000 years, up to the time of Cimabue, all this period we now enjoy and profit by and you can't go back of it. It is a gradual development, and whatever you are is a result of what has gone before. Cimabue was born in 1240. He was the first man to paint a figure with some feeling of life. All during the Dark Ages they were painted; if it was a picture of the Madonna, she was in the centre, there was a child on the right and a child on the left. No man came along in 800 years who had enough originality to change the position of such a picture. Think of that 800 years and not a change, not a new development, not one new way of doing a thing.

We look at the primitive Italian work—the work of Cimabue—and it looks crude to us today, and yet it broke away from this process of the past and was a glimmer of something new, and it was a hundred years then before anything really new was added. Men painted as Cimabue, and little better, during the Middle Ages. For two hundred years they knew nothing of perspective; lines went every which way. They did not know as much of perspective as any school child knows today. It had to be invented. Somebody had to find it out. They knew nothing of anatomy; the joints and knuckles were of different numbers and too many of them. Finally they found that the artist must study anatomy as well as the surgeon. You go in the art school today and the first thing you see is a skeleton hanging up. It was not until the time of Leonardo da Vinci that they discovered really the line of perspective, some such as the child knows, and yet it took some two hundred years from the time of the Renaissance to discover such a thing as lines finished at a certain point in a picture. That knowledge came slowly, and was a further bit of knowledge that is added to our knowledge of art, and in the manner of producing it has come the same slowness, the same painful slowness—a long, long story.

Now there is no new way that flashes out suddenly; it is all a case of slow evolution. If we fix that firmly in our mind I think we will all realize that we own just as much of that as any other man, no matter what medium he uses. We have to follow along these lines. There is no road for the photographer except the long road that comes from the cave man down to us, and all good artists are following it the same way.

The making of an artist—how are they made? How are photographers made? Perhaps there is a little more romance in the manner of making an artist than in the making of a photographer. A photographer is a practical fellow. He comes in and has got to earn his living. The artist—well, some people say the artist is a sort of a foolish fellow—he does not know very much of how he is going to get a living. He wants to find out how to make pictures, and, as a rule, you will find that the students in Paris are living on little money and in shabby quarters, and put up with many hardships to learn what they learn. It is possible that the artist

takes the hardest road and more knocks than the photographer; but more painters fall down than photographers. We know of thousands and thousands and thousands in Berlin, Paris, New York, and London. We hear from very few of them; but almost every young man who goes into a photograph gallery sticks to it and climbs to the top, nearly every one. Thousands and thousands start to be artists and fall by the wayside every year. I don't know why it is so, but it is. How many a young man who has not been to college deplores the fact. He thinks there is some golden road, some easy way to reach the goal of knowledge; something that he has missed behind, having advantages and benefits of a college education, and many an artist self-taught, and I know many a photographer has often felt that he has lost something not having the benefits of an art school education, the same as the painter does. That is all very good; but all the art school education in the world won't make an artist if the artist is not there, and perhaps that is one reason why, out of 20,000 pupils studying today, a dozen or more will make a name for themselves in the world.

I want to say a few words about the public and about salesmanship. The public—don't let the public fool you. The public don't know much about art. How can it know? It does not know much about photography; but it comes in in its fine clothes and puts up a bluff, and sometimes it scares you. It does not know much. People who are successful, and make some money in hogs or soap or something else and are successful, somehow or other they know! It does not teach them Latin; it does not teach them Greek, to be successful in business; but they do think it teaches them art! They simply think that the art business is just floating around in the air, and when you get a certain amount of clothes and money you just reach out and it is yours. Such people think, as I said before, they fool the photographer and they fool the artist and themselves, but they don't fool you.

If you make good things, get good money for them, because in the art world people are paying $100,000 every day for pictures, and don't think anything about it. What you have to do is, first, to know that you are an artist; if you are not one, do all you can to make yourself one. Study and read, but realize that you can do it. Realize that the camera is a means of artistic expression; that you ought to know just as much about it as the man who wields a brush; impress it upon the customer that you know art. They will believe you every time, until you get it, and then say, I am the man who knows art in this town; I have been working an artistic trade all my life, and if I don't know, who does? Certainly the common public don't know. You take that stand: I am an artist, know my business, and know good art. If you say it long enough and loud enough they will believe you. When they believe you, they will come to you for a picture you say is good, and pay you your price, and be glad to have it.

Thursday—Morning Session.

President: Ladies and Gentlemen, notice was given that the constitution as adopted at Rochester was hurriedly written, and the Board thought that it was not in very good form, as it was so hurriedly prepared. The Board appointed a committee, who conferred with a constitutional lawyer to arrange this constitution and by-laws in better shape. But in sense the constitution and by-laws has been in nowise changed; I want you to understand that. This committee has been referred to the Congress

on Photography, who will now report through its Chairman, Mr. Harris.

Mr. Harris: Mr. President and Members of the Convention. We have had some work in the Congress of Photography this week. Yesterday we had a continuous performance from 9 o'clock until 6.30, and we finally got things in shape, so that we know just about where we stand.

I should say, in the first place, that we have taken into consideration the Academy idea and we have gone so far that we have our committee of ten appointed. That committee is now in shape, so that it can go ahead and select the 100. I am afraid that the committee will hardly report at this convention. They may. If they can see their way clear whereby they can pick 100 names, they will report here at the end of the week; but if they cannot find the names and get them together, then they will wait until next year to report. We will know tomorrow morning. There have been some fine ideas suggested from the different States in this Congress of Photography, and they are making of the Congress exactly what was first proposed —a clearing-house for ideas. I should say, also, for the benefit of the members present, that fifteen States have accepted our new constitution, and over 1200 members in those fifteen States have paid their per capita. This 1200 members in fifteen States, I think, is a mighty fine showing.

Among the things that the Congress suggests that we change is that the first Vice-President of the National Association be made the permanent Chairman each year for the Congress, and that the Secretary be made the Permanent Secretary each year, instead of electing a man off the floor that we make both those members of the Board members of the Congress, in order that we may have somebody working in the interest of the National and also for the benefit of the State. If we elect a man each year off the floor in the Congress, we have no working head during that year.

Another thing that is suggested is that we change the initiation from $3.00 a year to $2.00 a year, for every person that makes application as an active member. Next, that we raise the dues of non-affiliated members to $3.00 a year, instead of $2.00. In other words, that any man coming out from the State paying per capita be charged $2.00 a year dues, and that any man from any State not having an organization, or that will not join the State organization, pay $3.00 a year. I want to say that the idea advanced among the members of the Congress was that, since five men can get together and organize a State organization, it is foolish not to do it, and if any man is here from any State which has no organization in that State, get the five best men together and start an organization. It is better to have that five men who will work together for the advancement of a State organization than to have 500 if they don't pull together.

The other minor changes are such that it is only for the advancement in the working of the Congress, and it is not of any consequence to take it up with you; and, as far as the revision of the constitution is concerned, all of you have a copy, or at least you could have had a copy, as they were given out the first day in one of the weekly papers, and I know all of you have read the new constitution, that is, a revision of the new constitution. There are no changes in this constitution at all from the old one, which is the same, placing them under different heads, and the Congress endorsed this just as it is with just a few changes that have been suggested here. Those changes I have marked in this copy, so it is perfectly clear, and if you all agree with the changes that I have read, and also with the constitution as you have seen it published, I would say that we could pass it without further

reading. The Congress endorsed this completely, exactly as it stands. I think this is the complete report from the Congress.

President: Gentlemen, you have heard the report. What shall we do with it?

Mr. Bass: I move that it be adopted without reading it in detail.

Motion seconded, carried.

(Mr. A. F. Sheldon was then introduced, and gave an address along the lines of his address on salesmanship, delivered before the Professional Photographers' Society of New York, and which was reported at length in the June issue of this magazine.)

FRIDAY—MORNING SESSION.

President: The Committee on the Progress of Photography is not ready to report, and their report will be read at tomorrow morning's session.

Mr. Lewis wishes to make a report from the Congress of Photography, and the resolution to be acted upon.

Mr. Lewis: As you well know, this committee of ten men, of which seven men, as described in the number first mentioned, was augmented to ten, therefore, there have been the number required, met at different times, and we have been working very hard, and we find that we are up against some difficulties, and after due deliberation we concluded that we would come before you this morning and report only that we are working away, and while a number of names have been mentioned, and we have gone over the country pretty thoroughly, there is a lot to do in making this selection of names thorougly fair and considerate to all interested. Therefore, we have decided that we would have to make this request of the convention, that this committee be empowered to conduct the preliminary work of the formation of the Academy along such lines as they find most practical and report at the next annual meeting of the Association, and that they have placed at their disposal the funds already allowed by this Association for that purpose. I might add that the work of this committee is rather more important than probably some people thought. While it is not final (it will be up to the open convention to make final any action that is taken by this committee), as we find that the lines laid down by your action last Tuesday placed upon us some restrictions, that we ask for a little thought of leeway. We will not be taking any undue leeway if you will pass this resolution, because we have to report whatever we do before you at the next meeting of the Association. The resolution is open to a motion for adoption.

Mr. Medlar: I move that the resolution be adopted and accepted.

Mr. Harris: I second the motion.

Carried.

Mr. Harris: I move that the old committee be discharged.

Mr. Abel: I second the motion.

Mr. Hearn: I second the motion.

Mr. Lewis: The committee Mr. Harris refers to is the committee appointed last year on the formation of an Academy, which consists of Mr. Hearn, Mr. Harris, and Mr. Appleton. Hearn and Harris have been members of the committee, and Mr. Appleton is away. If you think they have discharged their duties, and this new committee having been formed, of which the same men are members, we simply ask for the discharge of their old committee, as the same men are acting in this new capacity.

Carried.

President: The next on our program this morning will be the report from the Chairman of the Resolutions Committee, regarding the death of the late R. P. Bellsmith.

Resolution upon the Death of Ralph P. Bellsmith.

As it has pleased an all-wise Providence to remove from our midst our dearly beloved associate, Ralph P. Bellsmith, Past-President of the Association; and

WHEREAS, We deeply feel the great loss of his advice, counsel, and support; and,

WHEREAS, We miss his genial presence and lovable character, yet, realizing that while absent in person, he is with us in spirit; therefore, be it

Resolved, That we extend to his family our deep and sincere sympathy in their loss; and, furthermore, that a copy of these resolutions be sent them, and same be spread upon our minutes.

GEORGE GRAHAM HOLLOWAY,
C. J. VAN DEVENTER,
J. BOURGHOLTZER,
Committee

President: You have heard the report of this committee. What shall be done with it?

Mr. Otto Zellers: I move the adoption of it.

Seconded and carried.

President: The next on our program, Ladies and Gentlemen, will be the presenting of the Life Membership certificate to the late Ex-President Frank R. Barrows, by Mr. Charles R. Lewis, of Toledo, Ohio. He will also present at this time the certificates of Honorary Membership, which were presented by an act of this Association of Tuesday, to Mr. Pirie MacDonald and Mr. B. J. Falk, of New York.

Mr. Dozer: While we are waiting, I want to announce that the attendance at the convention is 1800.

Mr. Lewis: Ladies and Gentlemen, I have been honored, I consider, very highly by the President asking me to come up here and make a few remarks regarding the gentlemen to whom we are going to present life certificates. I have been thinking so much about the Congress of Photography and the policy of the Academy, that I will be very apt to lapse into that and forget the object I have in mind, if I am not careful. For me to attempt to add anything to the glory and lustre of the gentlemen who are going to receive these honors would be very great folly indeed. You know them quite as well as I. Men who have given excellent service to this Association and on this I would speak more particularly of Mr. Barrows, and by this very hearty applause every time he appears in the hall and is asked upon the platform, is evidenced the warmness of feeling toward him that I could not add anything to by any eulogy; therefore, I will pass that up entirely and simply say that I feel so particularly honored in being entrusted with this pleasant duty to present to Mr. Barrows a Life Membership in this Association, and hope that he may live to a good, ripe old age and enjoy it, and that his activities in connection with this Association will not cease at all because he has passed through all the offices, but that he will be always here, in order that he may give us his counsel and render us all the help possible. Mr. Barrows, it is with great pleasure I hand you this Life Membership in this Association.

Mr. Barrows: Mr. President, Friends, things that I have done heretofore have been easy in comparison to the acceptance of this Life Membership certificate, coming from this Association, through my friend, Mr. Lewis. It is my pleasure to state that I was one of the Charter Members of this Association, formed in Chicago, at the Pacific Hotel, in 1880, thirty years ago. I have attended each session from that time until now, with the exception of three. I have served on that Board for eleven years. My interests have always been with the

masses and not with the classes. It has been my sole aim and purpose, in the deliberations of our Board meetings, in my capacity as an officer, to always look to the little men, never for a moment neglecting the big men. I have tried to cement the friendships of each and every man, including manufacturers and dealers, making what we are today, a solidified body of the photographers of the United States and Canada. Mind, when I say this, I don't wish to take personal credit to myself. I have always been warmly supported in any measure by a faithful band that has been surrounding me at all times. I have worked under the Presidents at their dictation, only once having charge myself as an officer. At Rochester, as you well know, we had a successful convention, but in saying that it does not mean that we could not have another one. I believe in Milwaukee today we are crowning ourselves with glory with one of the greatest conventions in the history of the Association. I like the warm feeling of fellowship that pervades the air. Everybody seems to be indeed harmonious, and I feel myself as though we are becoming crowded more full of the interests of each other and of the welfare of photography, and in accepting this Life Membership I want to say to you that to me it is the binding of all these years of earnest effort on my part, and cementing of a friendship that is long-lived to me. Of all the hard work that may have come to me as an officer, I receive it all back through your interest, through the endearing friendships that I have made, and I shall long attend this Association and have its interests at heart. I thank you.

Mr. Lewis: When yesterday, by your unanimous hearty vote you decided to honor those other two gentlemen, Mr. Falk and Mr. MacDonald, with a Life Membership of this Association, for the very effective service they have rendered in connection with the Copyright League work, I thought the convention did one of the wisest and best things that it could possibly do. Of course, the only thing they could do. I cannot express any greater appreciation, I think, than this, that the members have made Mr. MacDonald and Mr. Falk, in handing you these Life Memberships to this Association.

Mr. Pirie MacDonald: Mr. President and Friends, in accepting this certificate of Life Membership for my friend Falk, I am permitted one of the greatest pleasures that it is possible for one man to have. This man, whom so few of you have been fortunate enough to know as a man, who has not got in him the broad kind of mind and the broad kind of feeling which crowds him into assemblies; he is not one of the kind of people that can mix with many toward the accomplishment of results; he is one of the kind of people who goes way back in his closet and does his work, in places and by means that have no flag nor no music in front of them. He is a man who for many years has been devoted to this one subject of copyright, for the reason that he has felt that it was not of immediate benefit which would accrue to himself or to any one of you—but because photography required a copyright as a recognition of her status before the world. He has felt, and he has made me feel, the promise made, and it was only a few years ago that I felt exactly as most of you do, that copyright is merely a word and a name, but it is one that, if copyright were not accorded to photography, and if it were not accorded, too, with ample and full protection, that photography would not occupy the real place among the graphic arts. This art of photography is one of those things that makes it possible to put everything we have on a piece of paper which is of value to someone else. It is not like building a house on a lot that cannot be

moved. It is not like buying a garage, but it is something that is capable of reproduction, and valuable only because it is capable of reproduction, and if you sell the one thing and give away all right of reproduction, because you cannot be protected in it, you are then immeasurably below any of the other graphic arts. That has been the feeling by this man Falk, and when I tell you it will be because I know that that man has put in the very best years of his life to you. Believe me, friends, he has spent more time, which represents money, and more money than he, if he would live to be a hundred years old, would ever reap out of it. He has done this thing because he believed that it was the right thing to do. Friends, that man has never been one of our members; he has never been a part of us, and I want to say that I appreciate very kindly your grand fellowship in giving this diploma to a man who has never been one of us, and that it is given for me to take this to him. (Applause.)

For my own part in this, I must confess that while I have put in time and energy, as people who have been connected with the movement know, that I have been devoted, while it is true that the words have come from my mouth rather than from his when we have had these meetings before Congress on that enormous labor on the Copyright law, it was, it is true, my work to advocate the cause with my mouth, because of this little man, this modest little man who always stood in the background; but permit me to tell you, gentlemen, that the ammunition was prepared by him; he led me along to the places where I could most effectively use what he had given me. I grant you, gentlemen, that my part is a second part, and a small part, and I grant you, gentlemen, that I realize this diploma of mine has come to me because my name has been ranked with his. But I take the honor, gentlemen, I take the honor that thus in having been linked up to such a man and to such a great big cause, and I want you to know that I thank you most heartily.

President: We will now have the report of the Committee on Location of the next place of meeting. Mr. Moore, as Chairman, announced the voting as follows: Kansas City, 27; Atlantic City, 125; and St. Paul, Minn., 164.

President: The next in order is the election of officers. Ladies and Gentlemen, I have the report from the committee, signed and sealed, in my pocket, which was handed to me yesterday, and I have never known who ever have been selected, so I will open the report and read it at this time.

The Chairman of the committee reports for: President, G. W. Harris; First Vice-President, Ben Larrimer; Second Vice-President, C. F. Townsend; Secretary, W. M. Tyree.

We will vote on these names separately.

Are there any other names that wish to be placed in nomination for President?

Mr. Barrows: I move that the nomination for President be closed and that the Secretary be instructed to cast the ballot for G. W. Harris, of Washington, D. C.

Mr. Evanoff: I second the motion.

Carried.

Mr. Harris: Mr. President, Ladies, and Gentlemen, you know I am such a bashful boy that I never can talk in public; I have tried it a dozen times, and always fail. When I came up here, Evanoff said, Don't talk too long; anybody knows I don't talk too long; I am just shivering all over. I thank you very much for the honor conferred, and will try to carry it along. We will go up to St. Paul, and I know that Board will help us, and we will fight our way, and try and give you a better convention than you have had these years.

President: Ladies and Gentlemen, I want to say that you made a wise choice of Mr. Harris. He has been with me

on this Board, and he has done his duty, and I congratulate you on selecting him as your next President.

The next is Ben Larrimer for First Vice-President. Are there any other names to be placed in nomination?

Mr. Holly: I move that the nominations be closed for First Vice-President.

Mr. Medlar: I second it.

Mr. Medlar: I make an amendment to that motion—that the Secretary be instructed to cast the ballot informally for Ben Larrimer for First Vice-President.

Seconded and carried.

President: I declare Mr. Larrimer elected as First Vice-President.

Mr. Larrimer: My Friends, I will refer you to all the best things that have been said in the past by the newly elected officers, for the past twenty years, and those are my sentiments.

President: The next is election of the Second Vice-President. C. F. Townsend is proposed.

Mr. O. Zellers: I move that the nominations be closed and the Secretary cast the ballot.

Seconded and carried.

Mr. Townsend: Mr. President, Ladies and Gentlemen, I hardly know what to say to you at this time except that I appreciate deeply the honor you have conferred in electing me to this office.

President: The next thing, Ladies and Gentlemen, is for Secretary. Mr. Manley Tyree, of North Carolina, was proposed.

Mr. Medlar: I move that the nominations be closed and the Secretary be instructed to cast the ballot for Manley Tyree as Secretary of the Association.

Mr. Moore: I second the motion.

Carried.

Mr. Tyree: Members of the Association and My Friends: I thank you very much, and I assure you that I appreciate this honor that you have conferred on me, and I want to make good.

President: There is one committee that we forgot to ask for a report this morning, and if the Chairman of the Committee on Resolutions is present, we would like to hear from him.

Mr. Bowersox, Cleveland, Ohio: Mr. President, Ladies and Gentlemen, in the absence of our Chairman, I have consented to read this report to you this morning.

Your Committee on Resolutions begs leave to report to this convention that we have most carefully considered the various facts which have made this thirtieth annual convention of the Photographers' Association of America the most successful in our history, and, in giving credit therefor, would say:

WHEREAS, It is meet that due acknowledgment should be given to the various persons and firms who have contributed to the success of this meeting, it is hereby

Resolved, That we extend hearty special thanks and appreciation to A. T. Proctor for the many months of hard work that he has put in as President of this Association, and that we heartily endorse and commend the broad scope and liberality of his views, which have made the instruction imparted at this convention the best in our history; and, be it further

Resolved, That we extend our hearty thanks to the remaining officers of this Association for their earnest coöperation and labor in our behalf; and, be it further

Resolved, That we also extend our thanks to Miss Mary Carnell and her associates for their most excellent work among the women photographers, and for their interest in and help in the picture exhibition; also, be it

Resolved, That to Commodore M. J. Steffens, to his son, Leo Steffens, and to his assistant, the warmest thanks and

praise of this Association be extended for his excellent school of Artificial Light Photography and for his great generosity in giving his valuable time to this Association, freely and without recompense; and, be it further

Resolved, That to Messrs. Hoyt, Ellis, and Endean, the instructors at the Daylight School, the hearty thanks of this Association be extended for the excellent way in which they have accomplished their work. Be it also

Resolved, That to Ryland W. Phillips this Association is especially indebted for the time he has given and the interest he has displayed in our behalf, and for his two splendid lectures, our warmest thanks and appreciation are hereby especially tendered to him. Also

Resolved, That the work done by S. L. Stein and his associates as the local committee has merited our hearty thanks, as well as for the liberality of the entertainments provided; also, be it

Resolved, That our thanks be extended to the local press of Milwaukee for the manner in which it has opened its columns to the news of this convention, and also to the *Photographic Press* for its efforts in aiding the convention and helping to make it a success. Be it also

Resolved, That to the manufacturers and dealers thanks are due, and hereby given, for the liberality both in the convention proper and in the *Association Annual*. Also, be it

Resolved, That the work of J. C. Abel in preparing our superb *Association Annual*, in assisting the officers of this Association to the best of his endeavor, and in preparing a lecture for this convention without expense, therefore is most heartily appreciated, and our thanks are hereby extended to him. And, finally, be it

Resolved, That our thanks be extended to Mayor Seidel for his courteous welcome, and to all those who have taken part in the entertainment at the Elks' Club House, and their help to make the evening an enjoyable one.

CHARLES WESLEY HEARN,
A. L. BOWERSOX,
MELVIN SYKES.
Committee.

President: Ladies and Gentlemen, what shall be done with this report?

Mr. Holloway: I move that it be adopted and accepted.

Seconded and carried.

Mr. Holloway: I want to have a few moments to talk before the members get away, and then this is the important thing of the convention. I think I have something to say to you that will come nearer to your heart than anything you have heard. I dislike to bring this up before such a small audience, but it seems imperative that it should come before the proceedings this year.

At the meeting of the Congress of Photography there were a number of matters discussed and passed upon by the Congress of Photography, but have not been referred for action. Personally I think it should be. It was a hobby of mine, and I saw to it that it was reported back to you. I have here something that I think will be to the interest of the great mass of photographers all over the United States. I think it is something that will appeal to you more than anything else, and that it is something that will aid you to protect your business from the travelling itinerant transient picture people. I believe that this is of far more importance to the photographers of the country than the Academy, because it does good for so many. When you make them Academicians you do good to so few, so I have taken this up in a broad, comprehensive manner. It is amenable to some changes. Now, I wish you would pay attention to it, and I would rather not have any discussion on this, because there is something following. We know that this is

full of loopholes. We know it can be picked to pieces by anyone who wants to do it. We have not given the time to it, but we are making an effort—the only effort the National Association has done —to help the masses financially. It may fail in some places, but I hope you will look upon it in the light in which I have planned it, in a broad, comprehensive manner, so it will cover the whole world, so to speak. It may not do you good in your own town, but let us help the others. It may not do me good. Here it is:

MILWAUKEE, WIS., July, 1910.

THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA, IN EXECUTIVE SESSION:

To the Honorable Mayor and Board of Aldermen of the Common Council of the City of ————.

GREETINGS: The Professional Photographers of the United States and Canada, in convention assembled, hereby petition your honorable body to pass an ordinance placing a license upon all itinerant, transient, and non-taxpaying photographers and picture agents, thus creating a revenue for your city and at the same time protecting your home photographers (who are taxpayers) from ruinous and demoralizing competition.

THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

(Signed) By the officers or executive board.

Here is something that is to be printed and sent to the Mayor:

To the Honorable Mayor and Common Council:

GENTLEMEN: The above petition meets with our hearty approval, and it is our earnest desire that an ordinance covering same be passed.

(Signed) By the local photographers of that city.

Now, then, it has been suggested, and it has been carried by the Congress of Photography, that no city can get one of these to present before their Council unless someone in that city is a member of the State Association or the National. They are only to be issued by the National Association, with the seal of the National Association upon them. Now this has been passed by the Congress of Photography, and it is up to you to pass it here. As I said before, don't any of you pick it to pieces, because we know it is full of loopholes, but let us pass it, and we will at least make one great big bluff at doing something.

Now, then, Mr. President, I move you that the Association accept this and have it placed upon the records this year.

Mr. Abel: I second the motion.

Carried.

SATURDAY—MORNING SESSION.

President: The next on the program will be the report of the Committee on the Progress of Photography.

Mr. Rau: With your permission, I would like Mr. Abel to read that report.

Mr. Abel: Your Committee on the Progress of Photography begs to report that there has been no marked progress in this country during the past year, aside from varied improvements in the quality and scope of developing papers, and in the means for rapid and perfect reproduction of developed paper prints, as typified by the many machines being daily introduced.

On the other hand, progress in photography along scientific lines has its greatest development on the continent of Europe, due to the widespread recognition given to advances in our art. Your committee would therefore respectfully suggest that it is the duty of this Association to offer such recognition, as well as to stimulate greater effort, and for that purpose would offer the following resolution:

WHEREAS, Progress in photography in this country does not appear to be marked or to have sufficient stimulus; be it, therefore,

Resolved, That the Photographers' Association of America appoint annually from its funds the sum of $150, to be used for the purchase of a gold medal of special design, said medal to be awarded to such person or persons as shall, in the opinon of a committee appointed for that purpose, be entitled to the same for his or their work in photography; and, be it further

Resolved, That this gold medal shall be officially styled the Progress Medal of the P. A. of A., and that the recipient thereof shall be called upon to read a paper or explain his work.

Respectfully submitted,

WM. H. RAU,
J. C. ABEL,
W. S. LIVELY,

This is based upon the work of the Royal Photographic Society, who annually, or every two or three years, give a gold medal to that man or person who shows the greatest progress in photography. It has been given to the originator of the lens of the firm of Zeiss; it has been given to the Lumière Bros. for their invention of the autochrome plate; it has also been given in Great Britain to that man who has done the greatest work and brought the greatest progress to the science of photography. We have nothing of this now, and we need it. We don't recognize any good work along these lines at all, and I believe that it is due to the fact that our magazines and papers don't give much attention to the scientific side of photography. I believe that if this Association would take up some such methods of recognition that it would aid us greatly and bring some of those European people over with their work, a great many of which are unknown here, and it would redound to our credit and everlasting good.

Mr. Harris: Do we understand that this committee endorses a plan whereby we can give it to any man anywhere in this world?

Mr. Abel: The idea is that the medal should be given to anybody, no matter where he lives, whether at Rochester or Japan.

Mr. Harris: Then I move the adoption of this resolution by the committee.

Mr. Evanoff: I second the motion.

Carried.

President: The next thing on the program is the awarding of the $100 prize for the best novelty shown. The committee has decided that the best device shown is M. J. Steffens' artificial light method. Commodore Steffens, I take great pleasure, in behalf of the Photographers' Association of America in presenting to you the $100 prize offered by this Association for the best invention. I feel that you have given us something that is worth while, and it is my great pleasure to present you this check.

Mr. Steffens: I will simply have to state the truth about the whole matter now. My son is really entitled to this check. (Hands check to son.)

President: Is there any other new business?

Mr. Holsinger: Mr. President and Fellow Photographers, I am sorry indeed to have brought this matter up so late during this convention, but I failed to get it through the Congress, because they had been through the session all day and were tired, and I waited for another meeting, which they did not hold. We have been meeting in sessions for about thirty years; in point of efficiency we have gained a great deal, but from the standpoint of organization and throwing safeguards around the entire fraternity, we have done nothing. We have come to the Association simply for our own self-benefit, to improve our own work, and then we go back home and rake in the shekels. I think we

ought to do something that will help the entire profession; do something like the doctors, lawyers, teachers, the school-teachers, and everybody else has done; every labor organization, or get together and do something for the entire fraternity, instead of the few. I have a resolution here I would like to read. It may be too late to pass it, but we can get it on the record at any rate, and we can pass it perhaps at another convention.

WHEREAS, The public is being imposed upon by incompetents, inexperienced people masquerading the country as photographers, fleecing the public and lowering the standard of photography, and degrading the profession; therefore, be it

Resolved, That the President of the P. A. of A. appoint a committee of five, whose duty it shall be to secure the proper legislation requiring all photographers who make photographs for profit or gain, who are not now established in business, to pass an examination by an examining board composed of competent photographers appointed by the Governor. Be it further

Resolved, That the sum of $500, or as much thereof as may be necessary, be, and is hereby appropriated to defray the expenses of said committee.

Respectfully submitted,

R. W. HOLSINGER.

This is practically the same law the doctors and lawyers have before they can enter the profession. You cannot teach school before you pass an examining Board; you cannot enter college, and cannot do anything. The lawyers take about one-year academic course and three years before they get a college diploma, and then come before the State Board, or some other Board, and have to get admitted to the Bar before they can practice law.

Mr. Bandtel: I second the motion.

Mr. Abel: I move as an amendment to that motion that the whole matter be laid over until next year. It requires a great deal of consideration, which we cannot give it in this meeting.

Mr. Holsinger: Of course you can lay it on the table.

Mr. Abel: I will move that it be referred to the committee to bring it up next year.

President; The Chair would like to know what committee.

Mr. Holsinger: I believe a committee appointed by you.

Mr. Abel: I would say a committee of three or five, of different States.

President: Will you decide whether it should be three or five?

Upon motion, a committee of five was ordered.

Adjournment.

CLEANLINESS.

THE trained chemist has a very different idea of cleanliness from the ordinary individual, and photographic work being essentially chemical, it behooves those who aim at even ordinarily good technique to fully study this term from a proper standpoint.

If you were told by some photographic writer to use a clean glass measure for some purpose, you would probably give it a rinse or two under the tap and feel thoroughly satisfied. A chemist, in cleansing the measure, would give it two or three rinses in water, using a test-tube brush or some other article, and finally give it a couple of good rinses with distilled water. Such precision is unnecessary, you say. Well, it may be nine

times, but the tenth time it may be just that thoroughness which enables the chemist to get the result you strive after and never seem able to obtain.

This week I am going to give brief directions, then, for thoroughly cleansing dishes, measures, troughs, and so forth, feeling quite sure as I write that you will find them useful, and their strict observance more often than not beneficial to your work.

The easiest dishes to keep clean are the white porcelain or "granitine" ones, which have a glazed surface of excellent resisting powers. When developing gaslight or bromide papers in such dishes, however, black stains eventually make their appearance, and require removing. A small piece of flannel and some "Bon Ami" soap or "Sapolio" will enable you to do this; but a much more rapid and effective cleanser will be found in nitric acid, which instantly dissolves them. A few ounces of commercial nitric acid should be kept in a glass-stoppered bottle, in the dark room, for cleansing purposes, but care must be taken in using it not to get any on the fingers, as it burns the skin and makes it brown.

After a dish has been rinsed with nitric acid it should be given five or six good rinses with tap water, so as to completely remove all traces of the acid.

Dishes which have been used for M.-Q. and other developers, or in which fixing solution has been standing, will be found to have a rough feel, which washing does not remove. This roughness is due to a sediment which is insoluble in water, and an acid is the best means of removing it; the acid need not be strong, however, one part of either nitric, sulphuric, or hydrochloric acid in ten parts of water dealing with it effectively.

The sides of glass measures in which a developing solution has been standing become similarly covered with this deposit, and a little weak acid will be found to dissolve it away immediately.

Sometimes a sediment will form on the sides of a bottle, and nothing seems to remove it, so that we are inclined to think "it will not matter." Such a refractory bottle can be dealt with by filling it about one-third up with water, and putting a tablespoonful of small shot in it; the cork or stopper is then replaced, and the bottle vigorously shaken. The friction caused by the shot soon disintegrates and removes the sediment.

Fixing and washing troughs made of glass or porcelain, with grooves, require constant attention. The grooves should be cleaned out periodically with a test-tube brush, as slime and filth accumulate readily in them.

A last word as to the state of the dark-room bench or table must be said, as a dirty bench is the cause of endless trouble, though it is so rarely suspected. In rocking a dish, say containing hypo, a little of the solution comes over the edge, and is allowed to dry on the bench. A wet glass measure containing developer is next day stood on that spot. It is hastily taken up, and the contents poured over a plate to be developed; a drop of wet from the outside—contaminated with hypo—also finds its way into the dish, and then "something happens."

Wash and wipe your bench constantly; wipe the outsides of your measures and dishes whenever you have washed them; and do not keep the same rag or duster in your dark room for twelve months or more—have it washed regularly as well.

WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
MRS. EDWARD L. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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EDITOR'S TABLE.

Photographing in Old England, with Some Snapshots in Scotland and Wales. By W. I. Lincoln Adams. Illustrated; 112 pages. Price, $2.50. Published by the Photographic Times Publishing Association, New York, 1910. An advertisement informs us that this is "the record of a journey in England by a master photographer." As this has been done so many times, we are at a loss to understand this new attempt. The pictures are reproductions of stereotyped local views, and the reading matter adds little to their interest. The following sample is taken from the chapter on "Motoring in Wales:" "Our first stop was at Bala, where we stayed for lunch; then a drive around the lovely lake at Bala, and we proceeded on our way, over a wild mountain pass, shrouded in mist, to the little Welsh village of Festiniog. Here another stop was made to repair a punctured tire, and we arrived at the unique mountain resort of Bettws-y-Coed (don't try to pronounce it!) where we put up for the night." And so the author "motors" through England, Scotland, and Wales. A chapter is devoted to Doone Valley, the scene of Blackmore's *Lorna Doone*, which the proofreader was evidently not familiar with, for John Ridd, the hero of the valley, is several times referred to as John "Kidd." The book is well printed, especially the illustrations, and those who prefer to take their foreign travel this way will doubtless find it of some interest.

WE congratulate the Photographers' Association of America on its choice of officers for 1911. It is fortunate in having secured such an active and able executive, and the St. Paul convention for 1911 promises to keep up the great records made at Rochester and Milwaukee. President-elect Harris, Vice-President Larrimer, and Treasurer L. A. Dozer have already done yeoman service for the Association. Second Vice-President C. F. Townsend and Secretary Manley Tyree, the new members of the Board, have for some years been active workers in their State Associations, and have already earned national reputations. We have no hesitation in predicting a big success for 1911.

IT is not often that we see an advertiser playing a joke in his advertising, but in one of our English contemporaries we noticed a camera company, in advertising a hand camera, with an impossible name, announced in bold black type, "Every lady photographer should have a Euxit Camera." This is immediately followed by "Alvin Langdon Coburn says: 'After considerable deliberation I have come to the conclusion that the camera most suited to my purpose was the Shew Euxit.'" Aside from exposing his bad grammar, he might not like to be thus thrust into the "every lady" class.

IT was a happy thought on the part of the Photographers' Association of America, at Milwaukee, in electing B. J. Falk and Pirie MacDonald honorary life members of the Association in recognition of the great work they have done on behalf of photographic copyright. Their work was none the less great because it was unseen. For years we have watched their ceaseless efforts for a just photographic copyright law, and are glad to see them appreciated in so fitting a manner.

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Vol. XLVII ✣ ✣ ✣ ✣ No. 645

SEPTEMBER, 1910

WILSON'S PHOTOGRAPHIC MAGAZINE

DEVOTED TO PHOTOGRAPHY MONTHLY: ILLUSTRATED

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SINGLE COPY, 25 CENTS

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Ansco Company

Binghamton, N. Y.

By Charles L. Lewis, Toledo, Ohio

From "The Association Annual"

WILSON'S

PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVII SEPTEMBER, 1910 No. 645

NEW BUSINESS.

THERE are very few professional photographers who are so happily situated that they do not have to worry about new business. Yet to how many photographers does the admonition to get after new business mean anything?

Of course, we are all going to do it, but somehow we never seem to get round to making a beginning. The need of new business is so imperative that we sit around and emphatically protest that the next thing we are going to do is to get after some new business. It is always the next thing in line.

The hot summer months are over, and the everyday life resumes its normal course. People are more or less inclined to think about having their portraits taken. Out of a hundred who think about it, perhaps five will go to a studio of their own volition. How to persuade the other ninety-five to come to the studio is the problem that faces the photographer. With the rapidly increasing cost of living, the problem is becoming more difficult, and the photographer must become more resourceful. As Professor Sheldon pointed out at Milwaukee, salesmanship does not consist simply in selling that which is asked for, but in making a sale of something you have and that is not asked for.

The man who strolls into your studio and places a big order without any effort on your part is more or less an accident. Your studio occurred to him after he had made up his mind that he needed some portraits—such accidents do not occur too often.

You must find some method or methods that will make more people decide that they need more photographs and that you are the man to make them.

If you attended a convention this summer you probably came away with some new ideas. Put these into effect and let your old clients know about them. You will get some of them back to your studio. To secure new clients you must advertise. Let the people know who you are, where you are, and what you are prepared to do for them.

The first and one of the best methods of attracting attention to yourself and your work is the showcase. Almost any picture will attract attention, but the better the picture the greater the attention it will attract. A clean showcase, with a well-arranged display of your best and most attractive work, frequently changed, is a strong magnet for new

business. Go out and have a look at your showcase and see if you cannot make it more attractive.

For the people who are not within range of your showcase you must advertise. Either by using newspaper space or individual circular matter, you must let them know where you are, and what you can do. A carefully worded and dignified advertisement in the papers, or the same thing in the form of a well-printed and tasteful circular, will create a desire for your work.

These are details, however. There are a thousand and one ways of getting after new business that can be adapted to your particular needs. The thing is to do something now.

THE NEW ENGLAND CONVENTION, BOSTON, July 26, 27, and 28.

THROUGH the determined efforts on the part of President Oliver to make the New England photographers see and do their duty, the thirteenth annual convention of the Photographers' Association of New England, held in Boston, July 26, 27, and 28, was a decided improvement over the 1909 meeting, which seemingly touched the low-water mark.

While the excessive heat may have affected the attendance, the convention was in many respects a very successful one. The lectures were good and the picture exhibit was above the average—much care had been shown in its display. It is unfortunate that the judges of the picture competitions should have taken upon themselves to change the rules after the entries had been made.

The Association is to be congratulated on having elected J. H. Garo, of Boston, as its President. In honoring Mr. Garo the Association honors itself. Mr. Geo. H. Hastings was again elected Secretary, and Mr. W. H. Partridge replaces S. H. Holman as Treasurer.

The new Board is made up as follows: President, J. H. Garo, Boston; First Vice-President, F. A. Frizell, Boston; Second Vice-President, J. P. Haley, Bridgeport, Conn.; Secretary, Geo. H. Hastings, Haverhill, Mass.; Treasurer, W. H. Partridge, Boston; Vice-President for Connecticut; G. H. North, Norwalk; Vice-President for Maine; L. G. Gerry, Sanford; Vice-President for New Hampshire, H. H. Langill, Hanover; Vice-President for Rhode Island, Bert Horton, Providence; Vice-President for Vermont, A. Allyn Bishop, Newport; Vice-President for Maritime Provinces, J. Y. Mersereau.

Breaking away from the tradition that Boston was the only convention city, Bridgeport, Conn., was selected as the meeting place for the 1911 convention.

The Secretary's and Treasurer's reports were received and showed a paid-up membership of 362 and a balance on hand of $2326.46 January 1, 1910. Following is a complete list of prize awards, the judges being Ryland Phillips, Wilfred A. French, and G. Hamner Croughton.

Grand portrait class, open to the world, to H. Hoffman, of Philadelphia, for the portrait of a "Grand Old Man."

Portrait class, three portraits, any size, three prizes—First, A. Allyn Bishop, Newport, Vt.; second, J. P. Haley, Bridgeport, Conn.; third, W. B. Davidson, Narragansett Pier, R. I.

Genre class, three pictures, any size, two prizes—First, George E. Tingley, Mystic, Conn.; second, W. B. Davidson, Narragansett Pier.

Landscape class, three pictures, two prizes—First, W. B. Davidson; second, C. Edward Powers, of Milford, N. H.

State portrait class, for individual States only, three pictures, any size, each State two prizes:

Maine—First, Walter Fenley, Portland; second, S. E. Mathews, Portland.

New Hampshire—First, Claude L. Powers, Claremont; second, Hillsboro.

Vermont—First, A. Allyn Bishop, Newport; second, W. G. Freeman, Bellows Falls.

Connecticut—First, George E. Tingley, Mystic; second, C. S. Cochrane, Bridgeport.

Rhode Island—First, Albert Vandall, Pawtucket; second, Jean L. Harbeck, Pawtucket.

Massachusetts—First, W. H. Partridge, Boston; second, A. E. Whitney, Norwood.

Provinces—First, Charles A. Conlon, St. John, N. B.; second, Gauvin and Gentzel, Halifax, N. S.

THE NEW ENGLAND CONVENTION—PRESIDENT OLIVER'S ADDRESS.

[We have pleasure in printing below the address that President Oliver, of the Photographers' Association of New England, had prepared for the opening of the convention at Boston, July 26, but which was more or less undelivered, owing to the great heat. For many years Mr. Oliver has been a deep student of convention matters, especially those of New England. In this very frank and open statement of affairs he lays bare the conditions which have brought the New England and many other State Associations to their present condition of decrepitude and worse than uselessness. We would urge every photographer who has the welfare of his profession at heart to give Mr. Oliver's address a careful reading.—Ed. W. P. M.]

Within the past few years I have had various theories in technique, I have entertained divers notions concerning art, I have developed some ideas regarding associations and conventions; but, through it all, I have held one conviction—that if I knew photography, I would have very little about which to worry.

You doubtless noticed that I said "If;" I want you to notice that I said Photography, and I mean that if I knew the art and science as I feel that I ought to know it, and under more favorable circumstances might know it, I would take my chances against those who depend upon psychology in the reception room, hypnotism in the light room, and Christian Science in the dark room. Yes, I will throw in the services of the advertising expert for good measure.

I have believed, I still believe, that I have a logical right to expect that the photographic associations I have contributed to support should extend to me the means of acquiring such knowledge as the restrictions of my business and my environment have denied. When the office of the presidency was proffered me, it was not solely the sentiment of broad sympathy and "devotion to our beloved art" that prompted me to accept, as a part of the education to which I aspired, and it was more especially to learn from the inside what might be expected from the outside, I took up the work for 1910.

For fear you may not know what I am talking about, or may surmise that I forget, I will tell you my subject, "The Photographers' Association of New England." This subject leads to a multitude of details; but, as of most importance, I will mention those things of which I have heard much, or have heard often, since I stood before you a year ago: The prestige of photography—the recognition of photography—is photography art?—is photography a profession or a business?—the standing of the photographer—the ethics of photography—the prestige of New England—the "leaders" and the common photographer—prizes and no prizes—more art and less technical education—fraternity—the manufacturers and dealers—competition—the decadence of photography as a business—the education of the public a joke—the militating influences—the amateur and the automobile—"There is no business under the sun in which so much time, application, and ability bring such mediocre returns."—"photography is unlike any other business," etc.

"Business is business"—an old phrase but one of the truest ever expressed, and until photographers wake up to a realization of the fact that business is business, whether it be photographic or something else, we shall look vainly for material advancement or the mooted prestige of our art.

Here is the advice of a man whose annual retail business mounts up to millions: "Get down to fundamental principles and simplicities. Brush aside all the complexities and look the simple facts squarely in the face—get at the kernel of the thing—the thing you cannot get away from, no matter how much you cloud it with frills. . . . Strip it of its false logic; dig down for the truth; do not deceive yourself. There is something within a man which tells him, if he will listen to it, whether a thing is a cold fact or sophistry. I believe a business ought to be built on the same sort of specifications that guide an architect, who plans on what he knows to be true."

I would submit to you that we, in the conduct of our business, and particularly in our conduct of associations and conventions, have not looked the simple facts squarely in the face; we have not dispensed with frills; we have not stripped aside false logic, nor have we made plans on what we know to be true. But more of this later.

"Photography is unlike any other business or profession." I would ask the man who says that, what he knows of any other business. By accident, a few days ago, I chanced to read a little book treating of another profession—and, strangely enough, it referred to the business of the dentist, to whom all our customers say they would prefer to go.

The title of this little book was, *Brother Bill's Letters*, and I would most emphatically advise you to secure a copy, or the loan of one. You, who have paid at the rate of a million dollars a pound for the little gold plugs in your teeth, will doubtless be surprised to learn that dentists have been known to die poor, surprised to know that some who thought their incomes amounted to $3000 a year, found they were pulling out less than an even $1200; it will give you a jolt to read the time-honored advice regarding cleanliness, the kind of furniture for the reception-room, the class of pictures for the wall, and the suggestion that the breath be laden with Spearmint gum instead of freighted with garlic. In fact, all through, if words allied to photography be substituted for those allied to dentistry, you would feel the letters were prepared for your especial benefit.

It appears that dentists have dental meetings, also conventions. I will make a few quotations and allow you to effect

transpositions if it appears to you they fit.

"Dentistry as a means of service is a profession; as a means of a livelihood, it is a business."

"In some unaccountable way, in the early days of the dental profession, the idea became widespread that it might not be considered strictly ethical to openly discuss the purely business side of a practice. It has been quite the fashion for some of the older and financially successful men to rub their hands and, assuming a very grave and dignified tone, assure their young admirers that they never thought of money in connection with their work, but that their minds were wholly absorbed in the detail and poetry of the operation—and a lot more of such nonsense.

"Brother Bill" calls attention to the difference between "rendering professional services" and "selling materials." He says: "Practise dentistry—don't tinker," and as a final summing up, submitted these principles: "Education of cutomers; coöperation; unity in business methods."

"The prestige of photography" and all its ramifications might be dismissed without a word—or it might serve as a thesis for half a day. What does it mean? Does it mean anything to you? Strip it of its "frills" and have you anything tangible, visible, or comprehensible? Does your prestige support your business or does your business have a terrible struggle endeavoring to support your prestige? Is there any logical connection betweeen the prestige of photography and the stock-dealer's overdue account?

The art microbe has seemed to honeycomb the photographic structure, and a blind misguidance has fostered the impression that in art, alone, lies prestige; business is without honor and without glory. Listen to the words of Andrew Carnegie: "Affairs (meaning business affairs) are now too great to breed petty jealousies. . . So the dividend which the business man seeks and receives today is not alone in dollars. He receives with the dollar something better —a dividend in the shape of satisfaction in being instrumental in carrying forward to higher stages of development the business which he makes his life work."

"There is no business under the sun in which so much time, application, and ability bring such diminutive returns." Before denying or agreeing, I ask whose fault is it? Who dictated the selling price of your productions? Who insists on your location and the cost of your rent? Who gave you permission to work but six hours a day, or forced you to work twenty? Where, when, and how did you get your ability and what did you pay for it?

A logical consideration of the business acumen incorporated in the photographic body must include all—neither the leaders nor the common photographers alone—there are others in the middle ground; it must include all who are, who have been, or, under existing conditions, who may be members of this organization—and I say to you that if photographers as a class were particularly gifted with business instinct and exercised the same, the affairs of the Photographers' Association of New England would not have been in the condition they were when they passed into my hands, not to mention their condition when I relinquished my responsibilities.

"The standing of the photographer" refers to the attitude of the public, but what of the standing of "the photographer" among his fellow craftsmen? I can tell you frankly that if my customers and the public I am permitted to serve held me in no higher estimate than some members of this Association are held by other members, judging by their words, I would be in desperate

straits. Men look down upon other men for their real or fancied inferior ability and the paucity of their productions; men very justifiably condemn the debauched ethics of other practitioners, and yet without any sane or logical justification we accept into membership any man—any kind of a man—upon the payment of a paltry $2 any time he sees fit to pay and take him back again any time he sees fit to pay again. In our platform orations we prate of fraternity and mutual helpfulness, and in our private utterances give vent to uncompromising distrust; the man who does nothing for the common good is bound down by narrow prejudice and self-interest, while the man who cheerfully does all he can has a selfish motive "up his sleeve."

Furthermore, it is evident that many entertain no respect for this Association and care nothing for the respect of its members. You will find many who belong to the Masons, Odd Fellows, or other organizations, and religiously pay their dues for fear of the contempt of their brothers or of being expelled from the order in disgrace, yet with us, because we are an organization of photographers, they feel at liberty to play "fast and loose."

"The decadence of photography as a business," "competition," "the inroads of the amateur" in particular—these are our great sorrows of today. The amateur, who so many claim has undermined professional business, is permitted to be with us, learn all our wiles and mysteries for $2; for $10, or more, we admit the manufacturer or dealer, who may be engaged in developing amateur films at a flat rate of from nothing up to ten cents per roll of from six inches to six feet, and making prints at proportionale rates; who also makes enlargements for a fraction over the retail cost of the raw stock; who, furthermore, advertises his services in not only the professional and amateur magazines, but the popular magazines, with their millions of readers, as well; still further, you may find they issue a little booklet which describes their superb facilities and gives quotations on specific styles and stock—W. & C. platinum, Cyko, Artura Iris, Artura Chloride, or Royal Bromide, and this booklet is scattered broadcast through the mail and forced into the hands of every customer who enters the store, whether he be directly interested in photography or otherwise.

I repeat, that for $10 or more such a manufacturer or dealer may be granted full privileges of this convention for three days (with the exception of voting or holding office), and for $2 each their agents or representatives may hold equal privileges—still our Constitution states as a prime object of this organization, "To establish the relations between members of the profession and their patrons upon just, pleasant, and business principles, which shall promote the public welfare and be of mutual advantage to the photographer and patron."

Please notice, I do not say that these conditions do not tend to promote business relations that are "pleasant and just." There is another side to the proposition. I leave it to you to decide who holds the "long suit."

A few days ago, in one of our large cities, a double-truck electric left the track and went crashing into a large retail store. Besides smashing the big plate-glass window, it ruined hundreds of dollars worth of goods that were on display. It happened that the proprietor was a business man; so, instead of immediately inaugurating a cut-price sale of damaged goods, he filled the window with the best his stock afforded, and across the broken and battered remnants of the window he placed an immense placard, which read: "All Cars Stop at Rothschild's!"

The man of true business sagacity turns every incident and every apparent accident or misfortune to his own advantage. What has the average photographer done regarding the "amateur problem;" the itinerant, peripatetic view and crayon specialist; the metropolitan and stockhouse competition, or the low-price man on a neighboring corner? Has he worked to kill it, or has he fostered it by bringing himself down to the same level?

Just a few instances: A "successful photographer," after several years of prosperity, moved into a larger and more elaborate studio. The rent of the new location cost him four times the rent of the old. To prevent the advent of a low-price competitor, he continued to pay rent on the old studio, and that made his total rent five times his original expense. For years he carried this extra useless expense, but during that time he did not expend one cent for new apparatus or accessories; he did not attend a convention, and I am quite sure he did not spend a cent for photographic literature; his productions certainly did not improve in quality, while his business certainly decreased in volume. Within six months of the time the old studio was absorbed for other business, and this burden was removed, the low-price man came to a newly-built studio; the field was flooded with tickets, and within another six months the "successful" photographer went out of business.

Another instance: It wasn't long ago I asked a photographer the usual question, "How's business?" He replied: "Portraits seem pretty dead, but I've been doing a land-office business in amateur finishing; had to hire an extra hand to work on that all the time." By accident I afterward learned that he had to ask for an extension of time on his stock account. Why? Simply because he was fighting fiercely a competition that did not exist. His prices were evidently copied from the list of a metropolitan mail-order house, and he did not stop to realize the difference in what it cost him to produce the work when paying retail prices for his stock, nor the extra expense of delivery; that a mail order waits while a personal order for amateur work means that the customer calls three times a day and talks half an hour each time. He forgot that mail orders were cash, while personal orders read: "Send a bill to papa." He forgot he was cutting into time that belonged to his portraiture, and that his pose as an artist of ability must appear inconsistent.

In the case of enlargements, I have found many amateurs buying at the wholesale price, to which they were not entitled, yet who thought they were paying retail and paying too much.

Just what is the "problem" brought about by the amateur? Let us go back to the beginning. Less than twenty years ago, to the public at large, photography was a "black art." A man could step from the grocery or the tannery, and within a few weeks become a full-fledged photographic "artist." No one questioned his ability; he had become a man of wonders, mysteries, and strange deeds; quality did not count—anything would pass, because any explanation would pass. Today, when my introduction to a stranger includes the information that I am a photographer, it often brings the remark: "Yes, I got a camera about six weeks ago, and I found there was quite a lot to it before I got so I could do good work," and I realized I was immediately exalted to their level. Despite their knowledge of materials and price of materials, it is not what the amateur knows, but what he thinks he knows, that constitutes problem number one. Twenty years ago the public knew it knew nothing of photography; but today it does not know that it is as much in ignorance as it ever

was of modern professional portraiture. Still, "the education of the public is but 'to laugh.'"

It must be admitted that the amateur has made photographs "common," but the professional has made them still more so by making common photographs, and yet more common by their methods of disposing of their productions. Portraits on double-weight stock, with a few words printed on the back, are "postcards" at $1.00 per dozen; placed in a B. C. folder they become portraits, at $2.50 or $3.00, without the printing on the back; but with a bit of stove polish scrubbed on the front they become etchings or ivorytypes, at $5.00 to $15.00 per. Some employ the ticket agent to periodically introduce themselves to the public; the more æsthetic send the errand boy around to the home to leave a folio of samples—much as the train boy places magazines, playing cards, and chewing gum on the car seats; while the "at home" portraitist goes them one better, and figuratively says, "I am at your service, to save you all kinds of trouble; I will gladly sit on your back porch until you have something for me to do." What must be the ultimate psychological effect if there is no place on God's footstool a person can escape the photographer unless it be under the roof of a penitentiary, in solitary confinement? What can possibly cheapen photographs in the eyes of the public and arouse suspicion regarding their value more than such crazy anxiety to force their sale?

There was a time when salesmanship consisted in safely engineering delivery and collection; today it goes further, and demands perfect, permanent satisfaction. I contend that the majority of work delivered is not perfectly and permanently satisfactory; nominally the satisfaction is from the influence of undue argument, but more particularly because they have been induced to believe that the work they receive is as good as it is possible to produce. There's the crime. It is not that indifferent work is delivered and the cash collected; the crime is in the fact that people are influenced to believe they could not get better work elsewhere at any price, and years after you will hear them say: "The last pictures I had were taken seventeen years ago; I went to Hornblower—never again. They are in the bottom of my trunk now. I made up my mind if he couldn't make a good picture of me, I would never sit again."

This is the age of specialists; the majority of photographers advertise as specialists. As a matter of fact, about 49.5 per cent. are specializing in the specialty of another 49.5 per cent. Possibly I have set proportions a trifle high, but only a most insignificant number have had enough originality, enough faith in their own ability, and enough esteem of their own personality to forge ahead along independent lines and demand adequate recompense from their clientele. I am told the photographer's one strong point is the cutting of prices and their one ambition to discover something that shall bring in additional cash without involving the necessity of work or study. There are myriads of studios that have not made a single advance step in the last decade. Take away the modern photographic papers, the new designs in mounts, the recently painted backgrounds, and the lately manufactured rubber stamps—take these all away, place them on the basis of ability, and they will find that they have been in a trance. Still, in many instances, you will find they have maintained a hypnotic influence over their field; their customers have apparently been satisfied, and, though business is becoming dull, the photographer does not realize there is a gold mine at his feet, unworked and unproductive, because he has made no addition to his capacity or ability.

If we brush aside all complexities and look the simple facts squarely in the face, we shall find the fundamental trouble with photography as a business is the fact that those engaged in it do not know the business; we shall find many who do not want to know, and a very great many more who believe they do not need to know. You may ask who am I that I should stand in judgment of other men. I do not stand in judgment; I but reveal to you what has been revealed to me by the experiences of the past few months; I but repeat to you what has come out from the mouths of photographers in their own self-condemnation and the censure of considerate but long-suffering customers. Not long ago a photographer remarked that he was lucky—he got into business and thoroughly established at the right time, which meant a time when limited knowledge sufficed. Shortly after, a good customer said: "I hate to withdraw my trade because—well, because he's a darn good fellow, but when it comes to his work—it's rotten; when he goes to take a picture he just points the camera, and whatever happens, happens."

From those in a position to know, we learn that the country is being actually flooded with the rankest specimens of photography that have ever been produced. At the same time the demand for good photography is constantly increasing; photography is more and more entering into commercial and industrial lines, and the demand is for the best. In portraiture, when a portrait is really in demand, high-grade work will sell if the people have had an opportunity to learn what can be done in photography. We must not expect public appreciation to anticipate the performance.

Association men have been loud in their demands for the "recognition of photography." Photography has not had a chance to be recognized. In spite of the insistence of the demand, you can hardly find a handful of men who will stand for the recognition of photography if their pocketbook is to be affected adversely, or they are so shortsighted as to think it will be affected adversely. This is the day when affairs are settled by the court of public opinion. If I mention the "leaders" in our craft, perhaps a score of names will martial themselves before your mind; but the great public knows them not. If I speak of the work of these master-craftsmen, before your mental vision there comes floating a collection of grand creations; but of them the public at large is ignorant. In the eyes of the public, the "swell photographers" are those who photograph our Salome dancers and high-browed legislators, at $7.00 for fifty and $12.00 the hundred. Why? Because these are the pictures the public sees in the popular magazines, and because one issue of such a magazine, with its million or more readers, has more influence on the public than the combined influence of all the photographic associations of America.

A year ago, as I stood with then President Webster, in the Seneca Hotel, at Rochester, we were approached by an associate member of this Association, who brought up a discussion of our organization's affairs. He remarked: "There are many things I would like to say, but I do not feel in a position to do so; I must say, however, I think you fellows make one big mistake that you don't put 'representative men into office.'" Realizing I might be considered "in line" for the Presidency, I replied significantly, "I agree with you." This instituted an outburst of apologies, which I interrupted with: "I do not believe it is for the best interests of the Association to elect to the presidency a man of whom no one ever knew, from a town of which no one ever heard"—and I meant it. From the first I was determined not to assume the responsibilities of the execu-

tive without another year's experience, if at all. When the nominating committee represented to me that I must take it, because no other man would, there were two influences that induced me to accept. First, if the welfare of the Association must depend upon the prestige of the President, regardless of how faithfully he worked; if, in fact, it must depend upon popularity and cold plunks, I thought the demonstration might as well occur in 1910 as forty years later. Second, as affairs were conducted, it did not appear that another year of service as a subordinate would result in a material gain of enlightenment.

When I was elected, I am happy to say, I entertained but few misconceptions—perhaps but one—and that was serious. You may remember my remarks a year ago, that I said I looked upon my election not as a recognition of anything I had done, but as a guarantee of faith in what you expected I would do. I had been led to believe there was a strong element that had specific ideas they wished should be consummated; something along the line of a reorganization to incorporate the "Section" idea. I understood that if this Association could become, in a measure, rehabilitated, there were men of ability and men of prestige who stood ready to honor the Association with their service and strengthen it with their energies. Gradually I learned of my mistake, until it reached a point that I wrote to one of our best-informed veterans: "Today, I think even you, with your wide acquaintance, would be unable to name twenty-five whom you could assert are active, working members of the P. A. of N. E. The others pay their dues just as you would buy a ticket for a show—for the same purpose and with the same sentiments." He answered: "I guess you are right."

The evening I assumed office there was placed in my hands no records or data on which could be based a plan of procedure or the basis of a campaign. In the office of the Secretary were filed away such records of previous years as it is customary to keep; but the records of members, what they had done, and what they might be expected to do, was not included. In the conduct of conventions it was evident that the photographers of New England had been the least consideration, because they had proved the least dependable. There had been but one proposition, not what the photographers would do, but what the Executive Board could do, could buy —that would induce the New England fraternity to come and buy a ticket to the show.

The supreme facts were that we had a "paid membership" of 332 and a balance in the treasury of over $2300.00. What the members were, why they came, or would they ever come again, was not in evidence; where we got so much money, or how we made out to keep it, didn't seem to matter.

It seemed to me that the first move, from a business standpoint, was to secure the names of New England photographers, and thus obtain a list of prospects from which to build up a clientele of sincere supporters. For this purpose we sent out 1400 return cards, requesting name, address, and status of employment; we received in return about 200, which made each name cost us something like twenty-five cents. We hoped the names were good, because they cost good money.

The next move was to send out personal letters to widely scattered men and members of prominence—some sixty in all—asking advice, opinions, or preferences on important matters; seventeen replies came back. The list included eleven of the Past Presidents, and two replied. Following this encouraging ouslaught, we issued some 1500 circulars with the inquiry: What Do You Want?" and a list of features that might be promoted.

Thirty-four circulars were returned, and I was forced to conclude that 1466 members of the fraternity in New England either didn't want to know photography, or else were standing on a banana peel waiting for the fool-killer. A few weeks later we sent out a circular embodying the question: "What Will You Do?" and none came back. So it was evident that the 1466 who knew everything would agree to do nothing.

There was evidently nothing to it but the Executive Board, so the Board has met at frequent intervals and held guessing contests. Among my first questions, I asked: "For What Are We Working?" and "For Whom Are We Working?" It was in evidence that the last question could not be answered until the convention day. In answer to the first, it had to be resolved that we must work to secure a large attendance—it mattered little how—we must get a crowd in order to save the prestige of New England, once known as second only to the National.

I have noticed that public comment has given me undue credit for the plans of 1910. I must tell you that if affairs had been left solely to my inclinations, sentiments, and beliefs; if my associates had not been men of wider experience and keener discrimination, and if influential men had not been consulted, it is probable affairs would have been decidedly different and perhaps emphatically worse. Still, a word of explanation as to the influences that gave rise to my sentiments and beliefs may be justified.

As a member, I have attended nearly every convention this Association has ever held; for years I have come up those steps and met the cold indifferent stare of the inspector looking for my button. I have wandered about these capacious halls without once receiving a smiling greeting or a warm hand-clasp except such as emanated from the department of manufacturers and dealers. I will admit it was partially my fault, because I am not by nature a "mixer." No one inquired what I wanted, or if I had found it; whether I were satisfied or dissatisfied. After I got home, I read in the magazine that so many hundred people attended, and the convention was a success! Upon urgent and flowery solicitation, I have forwarded exhibits; but unless a winner, no word of acknowledgment or thanks was mine.

In my first remarks I expressed appreciation of the knowledge of photography and the claims I had on my Association to extend me means of acquiring it. Possibly you wonder what I mean. An accepted authoritative treatise on photographic portraiture could have all its various styles of lighting illustrated by using a single box of plates—and to many this covers the whole basic ground. Without moving subject or camera four boxes of plates would not cover the possibilities of one style of the plain or portrait lighting. By recourse to the numerous varieties of printing mediums, more than a score of varying effects might be secured from any one of the forty-eight negatives in the raw; with a single grade of modern gaslight paper another score of variations might be obtained by chemical manipulation, etc., and if we had recourse to the enlarging room, perhaps an estimate of fourscore variations would not be ample.

Do you perceive what I mean by knowing photography? Perhaps you will say these variations would be extremely subtle. I would answer: Art is subtle. Perhaps you may say, we all knew these things might be done. That is not the proposition; do you know enough to do these things, and do you do them?

I will admit that if I wished to become a portraitist, I would feel it incumbent to study some of these unnamed "good books," and find out what I was really trying to do; what the human face really looks like; how it is constructed, and how

it should be expressed. If I aspired to attempt the use of drapery, I would study the laws and principles laid down; endeavor to comprehend that my object was a draped figure, not a figure and drapery massed and assembled like the garnish of a shop window or holiday bunting on a court house facade; but I would not forget a picture may be resolved into six fundamental elements, that every one of the six may be directly connected with the fundamental elements of photography, and I would endeavor to master the elements before learning to varnish a print.

For this convention my original ambition was to promote an exposition of photography rather than a simple exhibition of photographs. I would have provided art and art instruction for those who demand art, but I would have endeavored to furnish technical education for those who needed it and wanted it; I would have offered prizes, but the prizes would have gone to the men who entered or provided the best ocular, concrete demonstration of the possibilities of negative making, negative manipulating or faking, printing schemes or dodges—in fact, any proposition, process, or procedure that might enter into a photographer's business, from the securing of the customer to the delivery of the finished productions.

From those consulted, my commonplace schemes met little approval or encouragement. The great need of photography was art, and it mattered not whether the photographer needed technical education, common sense, or coin—what photography needed the photographer must have. Yet these same men, in moments of absentmindedness, declared their greatest trouble was not how to make pictures but how to get the people into their studios to buy them. Strangely enough, when the project of having advertising included in our program was mentioned, art and the need of art assumed its mammoth proportions—and yet more strange, in a later moment of mental aberration, it was confessed (or became in evidence) that the financial tide is a continual fight; cut-price leaders and schemes must be devised to combat the inroads of the "portrait factory" agents, with their tickets, their "game of talk," and their family concessions, that work out as interminably as the certificates with Larkin's soap. Still, it was generally their pride that they didn't waste their time trying to "educate the public."

Another plebeian proposition of mine was a "business" exhibit of portraits in staple size, finished, mounted, etc., in the form and style customarily delivered. This was to be a non-competitive auxiliary exhibit entirely separate from the art department, and I even offered to place a danger signal over the door. Serious objections were raised. Such an exhibit would be too commonplace. Well, don't you suppose I knew it. That was exactly why I wanted it.

We have talked art and about art; we have claimed to work for the advancement of art; we have assembled a yearly collection of photographs that have temporarily been recognized as art; practically all the time we have kept a watchdog at the door to prevent the public from seeing this art, but when it came to placing on our walls a collection of portraits such as the photographers of New England are foisting upon a long-suffering public, these selfsame photographers could not come here and look it in the face without being contaminated or ruined.

Am I or am I not justified in saying we have not built our businesses and our conventions on what we know to be true?

Perhaps, aside from our program arrangements, our connections with the manufacturers and dealers have been one of our most vital considerations.

Some of the Associations have taken up the matter of excluding outside interest. We have not; but it would appear that many of these interests have taken it upon themselves to respectfully withdraw. At an early date I was confidentially informed, that New England had got a "black eye" with the dealers, and if we were to profit by their financial support, I must show them good reason for their patronage. The only reason given for these statements was that we followed but two weeks after the "National."

I have been forced to conclude that the reason involved the oft-mentioned "prestige of New England." I sent out at least sixty personal letters, and you would naturally suppose that the "prestige" of the President would have been sufficient to secure the courtesy of an answer, particularly in view of the fact that if he had written as an unknown individual asking for a bunch of free samples they would have come by return mail—or the fact that a kid with a $2.50 camera secured an agency that eventually brought a demonstrator to town to hunt him up. A total of twenty replies brought but one proviso, viz.: provided the attendance will justify the expense.

In my brief experience I have seen and heard many manifestations of distrust of our supporting outside interests, and it became evident to me that the business relations between them and this Association are so far removed from modern, recognized business methods that they would not be tolerated in any other direction. We sell space—we do not sell time. It is tacitly understood, but not agreed, that half of our convention time shall be "with the manufacturers and dealers;" the other half of the time is supposed to be filled by our program features, and you never see on a program, "With the art exhibit," which represents so much expense and is supposed to be of such educational value.

From these rambling comments and criticisms of affairs—which have been denied the benefits of editoring and censoring, possibly I may condense a few truths or near truths.

We cannot form a pool and settle all the overdue accounts in our field; but we may formulate rules (and enforce them) which shall make our static membership embrace more than our "life members," who are immune from dues; we can make active membership dependent upon joining for at least a five-year term, and if it be possible that desirable members are financially unable to appropriate two-thirds of one cent a working day for the payment of dues, we might reduce the dues and inaugurate an additional separate charge for admission to the annual show. This year the P. A. of A. has demonstrated that it is possible to produce a Convention Annual fully worth the entire expense of dues.

Just as "Brother Bill" said regarding dentistry, our business prosperity is dependent upon the education of the public—coöperation and unity in business methods. If our financial hopes are not vested in organization, then we are without hope.

Beyond all questioning the officers of this and kindred associations have "tried to do what they could;" if they have failed, it is because they were prevented by them for whose benefit their efforts were expended.

It is a law that if anything is to be acquired, we "must do something for ourselves first"—but it is no less a law that until we do something for ourselves we have no conception of what has been done for us.

Extracts from letters written by three different men are most enlightening:

"I think it too bad that the prominent men in our line do not take the interest they should . . . they seem conspicuous by their absence."

"I believe that the majority of big men would be very kindly if they were to realize the direction in which their kindness might be expended with real profit to those on whom they would expend it."

"I feel that my willingness to assist the members of the Association in years past has been taken for egotism rather than sincerity."

One of the fundamentals of this Association is mutual helpfulness, and this can never approach realization as long as we remain victims of mutual distrust.

There is such a thing as the science of photography, the basis of which is science; to it we owe all; from us it demands but little.

There is such a thing as the business of photography, the basis of which is business—something a recent authority declares to be the greatest problem confronting nine-tenths of photographers today—something by which we either stand or fall.

There is such a thing as photography as a business, the basis of which is photography and a knowledge of photography; there is no legitimate substitute.

There is such a thing as photography as an art, the basis of which is also photography—and the teaching of this art to those who lack the basis must forever remain as futile as the Braille alphabet to the deaf and dumb, or the language of the mute to the unfortunate blind.

There is such a thing as the art of photography, the basis of which is art. To it some of our fellow craftsmen are giving the devotion of their lives. They are men "whom the cravings of their time seize like a passion, which they follow, and must follow, until they hear the people shout;" to them we owe our deepest gratitude, and if, in their tireless pursuit of ideals, they seem to forget or ignore the technical and the commonplace, we must remember that they have already travelled the rugged paths of technique; they have done their duty by the men of their generation, and it is for us to assume the obligations to the men of our time. In this connection I cannot refrain from mentioning the crowning achievement of one of New England's most energetic and devoted workers. The often questioned and sometimes ridiculed project of an Academy of Photography now seems assured of becoming an accomplished fact. At the National meeting, two weeks ago, the plans for an Academy were adopted by a unanimous sentiment, and thereby the photographers of America acknowledged the four years' effort of our honored Past-President, Mr. Charles Wesley Hearn.

The prestige of art and of business is not confined to Fifth Avenue, Chestnut Street, or Boylston Street; it must be maintained wherever photography is practised, and its greatest enemy is not essentially the man who creates only inferior productions, but the man who delivers such with an accompanying misrepresentation of its superiority.

The possibilities of this Association for the betterment of our art and our business are unlimited; but they can be accomplished only by a membership that requires to be neither bribed nor begged —one that is willing to give as well as to receive. It is not in evidence that our conventions have greater need to dispense with "frills" than do the members to dispense with "frills" before they attend. As we discuss the medals and certificates on our walls, let us not ignore the dollar "leaders" at the door.

Under existing business conditions we may not be able to enforce agreement to an iron-clad code of ethics, but we may at least demand subscription to a series of resolutions and beliefs. We may place the stamp of our recognition and the bond of fraternity on a higher plane

than the mere payment of a meagre sum; but as long as $2.00 remains the sole consideration, we cannot absolve ourselves from extending every privilege and every sentiment our Constitution implies.

We cannot exercise control over the speech of members, but we might so draft a constitution that speech would be futile in the face of facts. If the accomplishments of the amateur render him and his productions a valuable adjunct to our exhibitions and our education, admit them both and accord them their just recognition; if the amateur is our business enemy, if the organized professional is unable to cope with the unorganized amateur, if we collectively are unable to combat them individually, then debar them from everything but the art display.

If the slightest taint of suspicion or abuse can be cast upon our patronizing manufacturers and dealers, under existing lack of regulations, then we should arrange by-laws that will preclude such misfortunes and not figuratively extend one hand for cash while in the other we hold a knife to stab them in the back.

In conclusion, I trust no remark of mine may have been misconstrued as an acrimonious vent of spite. As the unknown man from the unknown town, it has been my great good fortune that I have no intimate, personal knowledge of any other man's affairs, frailties, or shortcomings.

I have given not only you, but all New England, a strictly impartial and impersonal administration. No man or woman has written me a courteous communication without receiving a considerate reply. No man or woman who did not demand more than twenty-five cents' expense for their name and address has been deprived of full knowledge and equal opportunity.

Largely owing to my influence, in the office of the Secretary there are filed away the names of 1500 men and women known as photographers; whether they all deserve to be known as photographers I do not know. After this convention, many of those names will be filed as members; whether all will deserve to be known as members will not be for me to venture an opinion—but the record of what they did in 1910 will be the sole heritage my successor will receive from me.

Positively as I may have expressed my views, I would not assume that I speak with the voice of authority; I simply repeat to you: "There is something within a man which tells him, if he will listen to it, whether a thing is a cold fact or sophistry.

A HIGH-CLASS STUDIO.

THE new photographic studio being erected by Mr. D. D. Spellman, in Detroit, Mich., will do more for the advancement of photographic prestige in Michigan than any number of letters that Mr. Spellman might write after his name should he be elected an Academician of the proposed Academy of Photography.

The studio is located on Woodward Avenue, Detroit's "Fifth Avenue;" and has for its neighbor the new St. Paul's Cathedral. The entire building, of two stories and basement, is devoted to studio purposes. The exterior is carried out in an English half-timbered effect, with tapestry brickwork, and with its red tile roof and overhanging top

story, the general effect is very picturesque.

Elsewhere in this issue we are enabled to show the floor plans. From these it will be seen that there is no top skylight. The operating room will have a height of seventeen feet, with a straight side light of fifteen by eighteen feet. The dark-room, enlarging and printing rooms are in the basement and will be equipped for development and printing-out papers with electric light as the illuminant. The basement walls are double, to keep out damp, and a special ventilating system has been designed to change the air in the workrooms every three minutes.

Before having the plans for the studio drawn, Mr. Spellman visited all the well-known studios of this country and Europe, so that every good feature of modern studio construction could be incorporated in his new building. Photography and "the top floor back" have been associated altogether too long, and the sooner two-story studio buildings become more numerous the sooner will photography become popular with the people. Detroit is to be congratulated on acquiring such a beautiful studio building, and Mr. Spellman deserves great credit for his laudable efforts to give professional photography an artistic and dignified home.

OUR ILLUSTRATIONS.

Our illustrations this month are rather an unusual lot, and are interesting from widely different points of view. The extra large frontispiece we are enabled to reproduce through the courtesy of Mr. Chas. L. Lewis and the publishers of the *Association Annual*. It is a good example of the work that has won for Mr. Lewis his fame as a craftsman.

The Hebrew types and studies, from the Mandelkern Studio, New York, are not presented strictly for their photographic qualities, but more for their human qualities. Mr. Mandelkern is more or less interested in securing records of types that are fast being absorbed and Americanized, much as Curtis has done for the fast-disappearing Indian types. Mr. Mandelkern's work has had a large circulation in the popular magazines, and has contributed largely to valuable ethnological collections. It is a class of work that renders photography of such service in preserving to future generations truthful records of former races. It is a branch of photography that few photographers allow themselves to become interested in—possibly because the cash returns are not so great.

The reproduction of the architect's floor plans for Mr. D. D. Spellman's new studio will interest every photographer who is hoping to follow Mr. Spellman's example and build his own photographic studio.

A Good Alum Fixing Bath.—The following excellent method of preparing a combined hardening and fixing bath is given in the *Taschenbuch für praktische Photographie:*

First make two solutions, thus:

A

Water	20 oz.
Sodium sulphite	1½ oz.
Hypo	7 oz.

B

Water	20 oz.
Potash alum	13 dr.
Potassium bisulphite	½ oz.

When all the salts in both A and B are dissolved, mix together the two solutions.

"RABBI BARUCH"

By MANDELKERN, New York

Head of a Freethinker

By MANDELKERN, New York

Blessing of the Candles

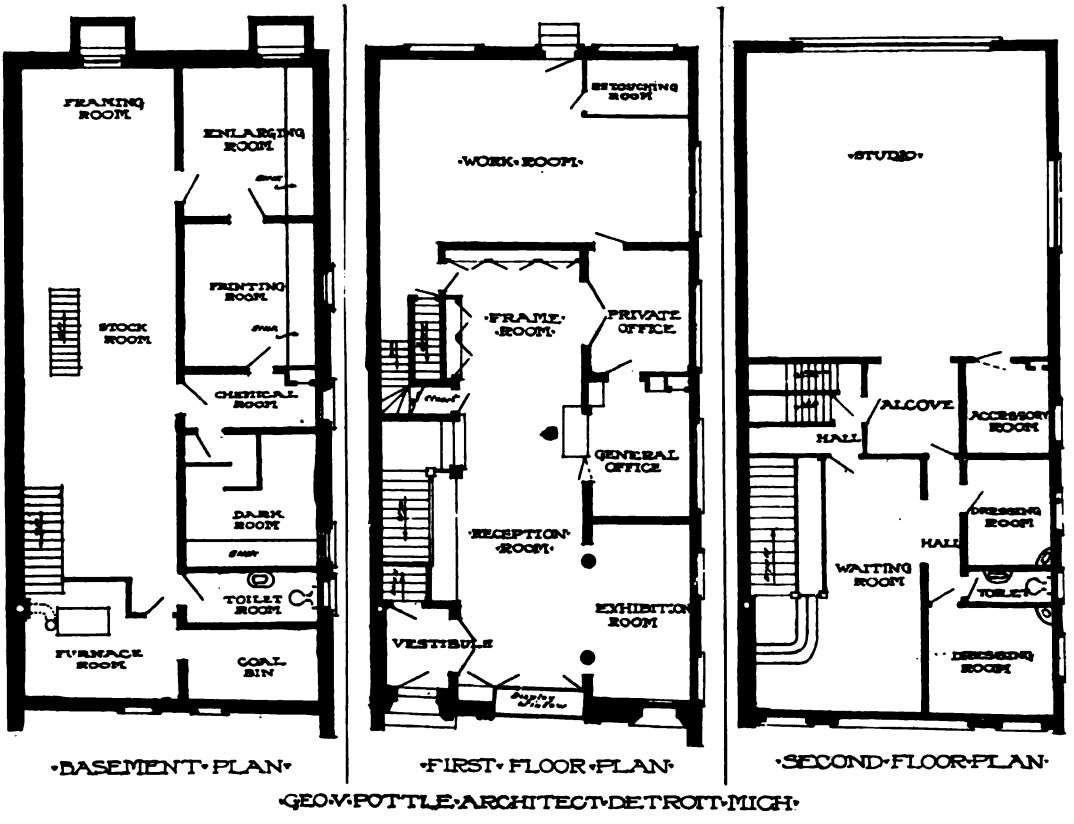
By MANDELKERN, New York

Young Merchant "Merchandise 425"

By MANDELKERN, New York

1. A Chedar
2. A Sabbatical Examination

By MANDELKERN, New York



Floor Plans of New Studio for D. D. Spellman, Detroit, Mich.

1. Sir James Dewar
2. "Reveller"

Illustrating Sidney Allan's Article

3. Charles Mason, Esq.
4. The Artist's Wife
5 Mrs. Pattison
6. Mrs. Joseph

Illustrating Sidney Allan's Article

MASTERS IN PORTRAITURE—W. Q. ORCHARDSON.

BY SIDNEY ALLAN.

SCOTCH, with a drop of Spanish blood in his veins, Orchardson easily held for several decades the position he won years ago with his "Napoleon on Board the Bellerophon." He was the painter of character, as Watts was the painter of allegories. Born in Edinburgh, seventy-five years ago, he learned the rudiments of art at the local academy, and after a few years of struggle in the provinces came to London at the age of twenty-eight. His paintings, "The Queen of Swords," "The First Cloud," "Napoleon Dictating His Memoirs," etc., enjoy great popularity. These can be seen in every art store.

The principal charm of his work, aside from the story-telling quality, is the way in which he manipulates his paint. His texture is almost as thin and fluid as water-color. This, of course, is lost in the reproduction, although a vague idea of his technique might be gathered from Fig. 3. All that concerns us is his composition in portraiture. Unlike most subject painters who occasionally paint a portrait, Orchardson brought into play all his highest powers whenever his brush interpreted a personality. Always interesting as mere likenesses, they contain that convincing quality which makes one feel assured, though one may not know or have ever seen the originals, that they are "human documents."

What I admire particularly in his portraits is the certainty and refinement with which they are handled. There is a simplicity and dignity about them which is exquisite. They do not show the slightest effort of display. Orchardson never played to the gallery. He always remained sober and normal. Look at his "Mrs. Joseph," "Mrs. Pattison," the portrait of his wife. Can anything more simple be imagined? There are no unnecessary flourishes, no attempt at picturesque effects and cheap embellishments. They are merely records, but records that are exceedingly authentic.

In his portrait of James Dewar (Fig. 1) we have a scientist in his laboratory. There is any amount of detail, but how well it is subordinated to the face! The face is in a flat middle tint, but how wonderfully luminous! This is largely due to the dark coat and background. They are neither of the deepest black nor opaque, but just of the right tint to bring out the face. As you will notice, there are no decided high lights in this picture. Strong high lights in the various glass objects would have upset the entire composition. They would have become too conspicuous. By keeping them in a uniform low tone he solved a most difficult problem. Particularly skilful also is the management of the hands. They are as light as the face, but do not obtrude. One hardly notices them at the first glance.

Fig. 2 is the faithful portrait of a dog. I say portrait deliberately, because this animal seems to have as much character as any personality. I believe that we ordinarily notice characteristics in a household animal much easier than in human beings; they are more decided, and surely ought to be brought out in the representation.

The tone of the picture is a trifle monotonous, as most of Orchardson's paintings when they are reproduced in black and white. He produced his contrasts by color rather than by light and

shade. The pose of the animal is lifelike, but awkward, and it must have been difficult to place the angular shape in such a way that it would fill the oblong space as well as it does.

The portrait of Charles Mason (Fig. 3) is excellent. The facial expression is wonderfully natural. It is produced largely by line. There is but little modelling. I wish we would see this method of characterization more frequently in photographic portraiture. Most photographers neglect linear expression, and yet it is line which emphasizes the features of a face better than any other medium. The nose and mouth are beautifully drawn in this picture. They give rotundity to the entire face. The only thing I object to is the black outline of the face to the right. The background is a good example of sketchy treatment. Eugene has frequently produced such effects photographically; but I do not believe it advisable unless you are a skilful etcher. The figure is well placed, although it might have been improved by showing a little more of the left arm. A hand without an arm never looks well.

The portrait of the artist's wife (Fig. 4) is particularly noteworthy for its effects of spotting. The face, the lace jabot, the belt buckle, the hands, and the little flower pot—five spots in all—dominate the entire picture. Each spot is necessary. It would be impossible to take away a single one without injuring the general effect. The drawing of the features in this instance is too heavy, as the face is strongly lighted. The diagonal tendency of the figure is well balanced by the shape of the hands. The flower pot was hardly necessary for this purpose. It was introduced as an accent of animation. The detail in this picture is handled with special care.

Fig. 6 is less satisfactory in this respect. The values are a trifle muddy and undecided, while in Fig. 4 they are clearly differentiated.

Orchardson's portraits are all tonal achievements. They generally carry out the same idea of a dark figure with luminous face and hands against a middle tint background. The lack of strong high lights makes some of them look a trifle dull, as is the case with Fig. 6. It lacks spontaneity, but is perfect in tone. Orchardson possessed the faculty of forming his work complete in all its parts in his brain before transferring it to canvas. They say he never, or rarely, altered a picture. This is the more astonishing, as they have the look of scrupulous and absolute finish.

A mastery of subtle light and shade and tonal division is seen in the portrait of Mrs. Pattison (Fig. 5). The dark bulky mass of the gown, framed in by the curious shape of the arm chair, lighter in tint than the background, makes it a quite unusual composition. Noteworthy is also the lighted floor and the smallness of the figure in comparison with the area of the picture. The figure looks as if seated in an interior, although its walls are not indicated; it merely suggests space. This is due, I believe, to the lighted floor below and around the hem of the dress, and by shading it off gradually into the background. The shadow behind the chair and the vague shimmer in the upper part of the picture also have something to do with it. The hands, I fear, are a trifle too narrow in design and too light in tone. They somehow attract as much attention as the face. In every other respect it is a surprising and most impressive picture.

To sum up one's impressions of Orchardson's portrait work, it is, in the first place, of a rare elegance and finish, due to the delicacy and precision of line and values. He has a keen intuition of character, and a wonderfully swift and

certain technique to express it. He has a remarkable power of focussing the main interest upon the face of his sitters and of discovering their most direct pictorial qualities. His dark passages have a resonant, sonorous quality, while the light effects have that rare luminosity and vibrancy that fuse all surrounding masses and shapes into a harmony of tone and feeling.

MAKING CONTACT NEGATIVES FROM BROMIDE ENLARGEMENTS.

BY WALTER ZIMMERMAN.

By far the simplest, as well as the most economical, method of making negative enlargements is that of making them by exposure through bromide paper, by contact in the printing frame. Ever since I began to make exhibition photographs, in 1901, I have made my negatives in this way. As to economy, the method saves a large plate with each negative, as compared with making a positive or transparency first, with contact negative from that. In addition, the time of exposure is so definite that there need be no waste on that account. While the exposure of a positive in contact may be from one second to one minute, there will be, practically, but one time of exposure through the paper, on account of the much thinner emulsion, as compared with that of a dry-plate. As an average, much more printable negatives are obtained, for the same reason.

Another advantage, and the most important, in many cases, is that many original negatives, which, while quite satisfactory with the objects small, need modification when enlarged, such as for the better rendering of masses or the elimination of obtrusive detail. To do this on a glass surface is difficult, and often unsatisfactory, but the front surface—and back also, if desired—of the bromide paper is excellent for pencil and pencil dust. Cloud effects may be added or improved by means of the latter used with a tuft of cotton. In other words, the dry-plate "sees through" the bromide paper everything that it holds, on both surfaces. As one looks at or through a bromide enlargement, with any needed changes, so will a print appear, made from a contact negative, with, of course, all of the great superiority of the print on any of the far better picture mediums, such as platinum or gum-bichromate. Even a contact bromide print from such a negative shows, with a good negative, made in this way, far better quality and range of gradation than the original bromide enlargement.

All that remains to tell as to the process is a few suggestions as to exposure and development. In making the bromide, "expose for the lights and let the shadows take care of themselves." For instance, with a good cloud effect in the original, expose for the clouds, in enlarging. Do not—if you care for advice—mask or shadow the image on the screen under any circumstances. Also, do not under any circumstances reduce or intensify an original negative. Make your increased or diminshed contrast in the two processes of making large positive and negative, and get all of the "quality" that there is out of the original. Treating it with chemicals will not make it any better, that is, for enlarging. If you have under ordinary circum-

stances overexposed a print by exposing for the light parts, such as clouds, develop with weak or stale developer, and do not carry the development too far; that is, not far enough to choke up the shadows. If you want strength in the bromide from a very weak negative, give an absolutely normal exposure for that negative—one which the less experienced would regard as being an underexposure —and carry the development as far as it will go, with strong developer. These rules will, of course, also apply to the making of the contact negative, so that there are two steps by which one may, at his pleasure, increase or diminish hardness or thinness, as the case may be, in the original negative.

Any dry plate may be used in this work, but I consider the Cramer Contrast plate to be the best. The usual exposure of this plate from an ordinary gas jet, at a distance of five feet, is fifty seconds; more or less than that according to the effect to be obtained. Any bromide enlarging paper will answer, except the cheap papers with poor and thin emulsion. The best now are the Eastman and the Monox. The one important thing is to get the right thickness and surface of paper, and that is, "thin—smooth."

The grain of the paper will not show in the negative except as a result of underexposure and forced development of the negative.

THE FUTURE OF PROCESS ENGRAVING.*

BY STEPHEN H. HORGAN.

OUR art sprang from the discovery that light acted upon some substances in such a manner as to quickly change their composition, condition or color. With this knowledge, and the fact that a lens would direct light rays, Nicephore Niepce worked until he engraved by the action of light a portrait of Cardinal d'Amboise, the first photo-engraving. This was in 1826. In 1839 Daguerre gave to the world his discovery of a means for fixing the image obtained by a lens on a metallic mirror, which discovery was born of an attempt to engrave metal plates. So you see that our business preceded photography, the latter being a sort of by-product of the experiments of the first photo-engravers.

It was in 1852 also that Fox Talbot discovered that the action of light caused bichromated gelatine to become insoluble in water, the principle on which all process work is based.

Since that time innumerable inventors, many of whom are present at this convention, have, by study, experiment, and the expenditure of much money, devised the numerous lines embraced in the term "process work." These men have brought about the great industry in which we are all engaged, an industry whose products enters into every household, which has been one of the principal factors in the spread of intelligence and of civilization; which has been the means of advertising all lines of business and making the fortunes of others. Is it not time we awakened to the propriety of keeping some of the rewards of our business for ourselves?

No statistics will be inflicted on you, for it has been said there are three kinds of liars—the ordinary, everyday liar, the

* An address delivered before the convention of the International Association of Photo-engravers at Buffalo, New York State, on June 27–28, 1910.

accomplished liar, and the statistician. Everyone knows that with the increase of illustrations all literature has been so popularized, from the daily newspaper to the edition de luxe of a book, as to have brought immense fortunes to publishers, while the process man contributes his time, talents, industry, and fortune itself to become a further slave to the power that is getting richer at his expense.

It would take hours to tell how some of these great capitalists have profited by photo-engraving. A couple of examples will suffice:

In 1883 Mr. Joseph Pulitzer got control of the *New York World*, and struggled along with it until March 12, 1884, when he startled newspaper publishers everywhere by producing on that Sunday a page of type illuminated with crude single column cuts. The result was almost instantaneous. The edition was speedily sold out, and from that day Mr. Pulitzer's fortune was assured. From a man overwhelmed with debts, on the day he began to use cuts, it is now said his income is $1,500,000 a year. He published a chart later to show the rapid growth in the circulation of the *World*, and the line of increase shot upward from that March 12. His success with cuts taught all the other papers that if they wished to fill a popular demand and increase their circulations they must use our work.

Another New York exhibit is that of the magazine proprietor, who began by having trouble in getting photo-engravers to extend him credit for the illustrations he needed, who is now so rich that he has purchased papers in several cities, and expects to have a chain of them at an expenditure of possibly $100,000,000.

It might be asked: "Why is it that these great book, magazine, and periodical publishers do not install their own engraving plants? Before process engraving came into use they employed their own engravers. Why the change? Because they found that, owing to the unbusinesslike rivalry which actuates photo-engravers, they can play one engraving firm against another, as they cannot do in paper buying, electrotyping, or press work. Thus do they get their engraving done cheaper than they could do it themselves, and, paradoxical as it may seem, frequently cheaper than the process engraver can do it.

If we had time to review the progress of process work we would find that it has in the past not only filled the actual want of the publishers, who have made fortunes on it, but it is our brains that have interpreted needs, which created demands, thus inaugurating many new lines of business. We would find that it has kept years in advance of the press-builder, ink-maker, and paper which trust, has also fattened on it.

One illustration of this you will recall on the introduction of half-tone blocks. These blocks required much more ink, and a better distribution of it, as well as far more pressure than line engraving; nor would they build presses structurally better capable of standing the greater strain. It was not until 1889, after most of us had broken our Washington presses, that I had a press of that type built, with all its parts reinforced to stand the strain of proofing half-tones, the size of a newspaper page, and this press became the model for the present giant presses.

Think for a moment of all the trouble our own Ives had in getting a few of his inventions adopted. In 1881 he had devised the three-color block method, but could not get an audience for it. Ten years later William Kurtz began to sink his private fortune in an attempt to popularize it, and failed, owing to the lack of intelligent support, from either the ink-maker or press-builder. You, gentlemen, have all had your discouragements at seeing your work ruined by unsympathetic printers and publishers.

It was of a photo-engraver this story was told: That after death, and while his guardian angel was escorting him upward toward the pearly gates, they met a prominent publisher going down. The habit of running after customers was still strong in the process man, so he begged the angel to permit him to follow, which they did, and when he reached the Inferno, he saw a cage marked "Magazine Publishers!" in which were many of his old patrons, crying out for "More cuts! More cuts! At any price!" Then he turned to his guide and said: "Please allow me to remain here, good angel. This is Heaven enough for me!"

Now, what of the future? What has it in store for us? Ours has been a constantly changing business in its short history. It will continue to be so. It would appear as if the engraving plants in the larger cities would continue to grow in size, with consolidation among smaller plants. The tendency in other lines of business is in that direction. Why not in ours? Unfortunately, we will have forces to work at night, in the rush seasons, so that sometimes the work will be carried on continuously, thus saving rent, space, and the cost of the extra plant for the same output.

The smaller plants, crowded out in the fierce competition, will either migrate to the cities of the second or third classes, or if they remain in the large cities will succeed only by specializing, as the other professions are doing.

This is the proper course, for the firm will be most successful in color block-making that has its photographers, etchers, and proofers trained only to that work; and it is in color block-making and printing that the greatest strides are made.

Some firms will not do rush work, but recommend their customers to the firm that makes a specialty of it, while the atter will not undertake fine engraving, but reciprocate by turning the work over to one that will give time to it.

There will be firms who will specialize in engraving on brass and steel, and in making embossing dies, those who will do photo-lithography and supply the transfers for the offset press; others will give their whole attention to photogravure and the engraving of copper rolls for photogravure printing.

There should be specialists in coarse half-tone for posters and in grained plates, specialists in booklets and catalogs, in calendars and the high-light process, just as there is now in steel engraving and collotype.

But it is in the model plant of the future that the greatest improvement will come. We will recognize more thoroughly that our business is at present dependent on several most unreliable factors—light, heat, moisture, impure water, and air; that we are troubled with variable chemicals, and our great enemy is dust, not to mention dirt. To save much wasted time and money we must in the future carry on our work under uniform conditions.

The perfectly reliable light for our purpose has not yet arrived. It may be an electric light, though that is not certain. The positive methods for supplying pure and clean air, heat, moisture and dryness are here in such a way that we have merely to supply them. The unreliability of our chemicals is bound to increase, as our competition does. It will be one of the purposes of this association to encourage the honest chemist when found. What your association can do in this line was shown when you obtained from our Government the concession of a special denatured alcohol.

As to dust, that spoils so much work on us, at a great loss of time and money, in "make-overs," that can be eliminated now. It will be considered a necessary evil as long as we depend on open

windows for ventilation. There are factories and stores whose windows are hermetically sealed, and into which no dust can possibly penetrate, unless carried in on the clothes of workmen or customers. It is a simple matter to have all the fresh air required in a factory to be either forced through water and be washed perfectly clean from dust, or drawn through partitions of fabric that will filter the dust from it. I have been in establishments where the temperature was maintained the same on the Fourth of July that it was on St. Patrick's Day, and the latter is often associated with the most uncertain weather.

We can have a pure water supply if we plan for it, while the equable temperature and purified air will bring our work into the class of healthful occupations.

Machinery will enter further into our business, performing operations in a more automatic, systematic, and satisfactory way, avoiding guesswork and the uncertainties that are now the cause of so much waste of profits.

We have scales for calculating the reduction and enlargement of copy, for the surface measurement of finished work, and tables for calculating charges. Systems for regulating the size of diaphragm and screen distance to the camera extension, or enlargement or reduction of copy are ours, but how few apply them? Meters for testing the strength or quality of light we use are to be had. As machinery comes more into our work, and cleanliness is found to be profitable, all exposed driving belts will be excluded. The proof press will at last succumb to the inevitable, and be operated by power, with all the gentleness of touch which now characterizes the hand proof.

Dragon's blood and other etching powders that irritate the lungs should not be allowed to destroy the air any more than sewer gas or noxious fumes. They should be confined or eliminated entirely. Dry plates will come more and more into use, and after the introduction of Paynetype, collodion and the silver bath will be banished entirely from our workrooms, without regrets. Instead of using pure metal to engrave upon, it is possible the future metal may be an alloy possessing greater hardness than the present metals. Etching machines are sure to come into general use.

The product of the process man will change greatly. There will be more and more color plates, and we would have a greater demand for them now if the pressman and the press-builder were not stumbling blocks. We should be making more tint blocks for two printings than we are now doing. Combinations of line and half-tone give most effective results. I mean by that key line-blocks added to half-tone prints, just as we now do the fourth plate in color printing. Line engraving will return to greater popularity when the engraver treats it with the respect which is its due, and in a businesslike way increases the now absurdly low charge for engraving it.

The offset press will revive photolithography, and will do work that was previously done by lithography, before relief blocks usurped its place. It furnishes the method of reproducing pencil and crayon drawings, and supplies all the beautiful effects of lithography at much reduced cost for press work, and on rough, pleasing-surfaced paper. It will not give the brilliancy in color of relief printing, though frequently a reduction of brilliancy would be a movement toward better taste.

Rotary photogravure, or intaglio printing from engraved rolls, is the process of great promise just now. It is capable, in proper hands, of giving us the finest art reproductions possible from the printing press. It has its limitations, which will prevent it from interfering with relief and planograph printing. But it also has its charming field,

into which other processes cannot enter. Let us hope it will not be vulgarized by becoming too cheap and the results unworthy of it. It is sure to bring a more delicate art treatment into the production of wallpaper, and into calico and other fabric printing. It will supply an artistic substitute for the Sunday newspaper's present colored horror.

Just a word as to the character of the copy we accept from our customers. It will be better when we deserve it. It is too often the case now that an artist or publisher will say: "It does not make any difference what kind of copy I turn into the process man; he manages it all right."

If we will be more honest with ourselves and the copy—what I mean is, if we will insist more on the photographer "getting it into the negative," and not leave the finisher to interpret, or translate, the copy according to his skill and the accidents of re-etching—if we will make it a rule to reproduce the copy, not what we think should have been the copy, then the customer will assume the expense and responsibility of having the copy in perfect condition before he submits it to us, for our regeneration and reproduction.

In our half-tone work we should keep before us the lesson of one of the causes which brought on the self-destruction of wood engraving. When the golden age of wood engraving had been reached in this country the engravers began to vie with one another in the fineness of the white lines they would cut in the block—lines so faint and shallow in the shadows that the electrotyper could scarcely reproduce them in his plate, and which were impossible for the pressman to keep from clogging with ink. Look out that we do not fall into the same error through the excessive fineness of the screens and the shallowness of the plates. There is growing evidence of it in the magazines of today, and consequent dissatisfaction from both publisher and public with the result.

It is in the character of the workman that the future will bring the greatest change. Our business was an occupation destructive to health, to hands, to clothes, and to bank accounts. As it becomes cleaner, more healthful, physically and financially, it will attract to it a more artistic type of workman—men, the product of technical schools, as they are in Germany and England. Apprentices will know at least the elements of chemistry and optics, but, which is of more importance, will have their hands trained to drawing and their eyes to color perception. I have been asked whether it will become an occupation for women. I hope not.

Gentlemen, the future of photo-engraving is in our hands. We must realize, first of all, how necessary process work is in the progress of civilization and of business. Contemplate, if you can, the blow to enlightenment and trade should you all stop making cuts. Think of the weekly and monthly periodicals that would collapse immediately, the thousands of printers and pressmen, electrotypers, papermakers, and allied tradesmen that would be out of employment, and the millions of dollars in presses that would go into the scrap heap. More serious than all this would be the blow to civilization, for pictures, as you know, are a language more universal than Volapuk or Esperanto ever can be.

An understanding of our importance in the world's work will inculcate in us self-respect and mutual regard for one another. The fellowship brought about by your organization and through conventions like this one should prevent us from being played one against the other in the merciless grind of competition, so that other lines of business may fatten upon us. And thus will the future bring us the reward our art industry deserves.

THE INTERNATIONAL CONGRESS OF PHOTOGRAPHY.

[THE following very interesting summary of the proceedings of the International Congress of Photography, held in Brussels, August 1 to 5, is reprinted from our up-to-date English contemporary, the *British Journal of Photography*, which was fortunate enough to secure an early report of the proceedings.—ED. W. P. M.]

Though the day of discoveries or inventions which will revolutionize photography, or even effect radical changes in any of its branches, appears to have gone, yet there are many important matters which require investigation, while minor research among the minutæ of processes will assuredly be productive of much good to photography as a whole.

The full program of papers read before the Congress which was held last week at Brussels shows that among a large number of investigators much work is being carried on. The French organization which has brought together photographic savants from all parts of Europe deserves to be heartily congratulated upon the results of its labors, with which expression of commendation the names of MM. L. P. Clerc and Ch. Puttemans deserve to be especially coupled.

On another page we give a short general account of the proceedings of the Congress, and follow it with the text of several of the papers read, or taken as read, at Brussels. It is to be hoped that British bodies, fixed and peripatetic, will take a lesson from the example of the French Permanent Commission. They should realize that upon them rest certain obligations in the way of providing the opportunity for the discussion of subjects conducive to the advancement of photography. The Permanent Commission have arranged their program upon broad lines. Though chiefly and inevitably scientific in their aims, they have not excluded the æsthetic aspects of photography, and have given due prominence also to the industrial and technological applications of the camera.

We shall devote a considerable space in the next few issues of the "B.J." to the papers read at Brussels, and would take the present opportunity of thanking the executive and its General Secretary, M. L. P. Clerc, for the assistance rendered in thus laying the proceedings of the Congress before British readers.

The experiments by MM. Lumière and Seyewetz on the effect of various hardening agents on gelatine communicated to the International Congress are of interest in two ways: first they show the relative ineffectiveness of ordinary alum; and second, they prove the great efficiency of formaline. If alum is as ineffective as stated, it would seem that the last of its assumed virtues has disappeared, and its use in photography may as well come to an end. It would, we think, be an excellent thing if it were to be abolished from photographic workrooms altogether. It has been credited with various wonderful properties that it never possessed, and so far as can be seen, its virtues are *nil*, while its great vice in the propagation of molds is only too evident. We notice that though formaline is most effective, MM. Lumière and Seyewetz deprecate its use with plates, on the ground that it tends to detach the film from its support. We should, however, be inclined to suggest

that this effect is only produced when too strong a solution has been used. We have met with no trouble of this kind when using weak solutions, and formaline is somewhat more convenient than the quinone staining compounds, while it is also more readily procurable.

Dr. Estanave's paper on the production of multiple transparencies describes an interesting development of the idea utilized by Mr. F. E. Ives in his parallax stereogram; but while Mr. Ives aimed at the stereoscopic effect alone, Dr. Estanave has taken advantage of the fact that the process lends itself to the production of changing pictures of the type that we see so frequently in, or perhaps more often outside, the shops in Italian towns. The passer-by is first of all attracted by a portrait, say, of a blonde beauty, but a second glance a few steps farther on shows a brunette in the same place. The mystified observer is then impelled to investigate further, and as a consequence the shop window receives a critical examination. Mr. R. R. Beard also worked out and patented a device for a changing picture, but not by a parallax method. For advertising purposes, few things are more effective than these pictures, and even though the secret is soon discovered, yet the changing picture is always a thing of interest, that is remembered and looked for. Excepting as advertising devices, such pictures cannot have much value. They are curious, of course, but the possessor's interest in a mere curiosity soon wears off, and the sale of curiosities is not a thing that can be relied on for long. Photographers, however, might find a few specimens of distinct value as showcase attractions, and, as newness is a very important quality in such features they would do well to look after this new process of Dr. Estanave. So far as we know, however, the plates are not yet available.

Many workers in both the carbon and oil processes have advocated the use of alcohol in the bichromate sensitizing bath for the purpose of hastening the drying process, but hitherto none seem to have troubled to investigate its effect on the gelatine. In the paper read at the Congress M. G. Balagny goes into this question, and as the result of various experiments finds that though the alcohol evidently toughens the gelatine to such an extent as to render it little liable to damage from handling, yet not in any way to hinder the development process.

He used only 20 per cent. of alcohol in the sensitizing bath, while others have advocated a much larger proportion. Possibly more alcohol might have a deleterious effect, but it is, of course, doubtful whether the effect of alcohol on the gelatine is at all permanent. A temporary toughening effect is a valuable safeguard against mishap, and so long as the print ultimately submits to the developing process it does not matter much if that process is merely delayed for a few minutes.

Captain Owen Wheeler, in a very interesting paper on progress in telephotography, read before the International Congress, reviews the present state of affairs in connection with this branch of photography, and also makes a suggestion for the future to the effect that the word "magnification" should be relegated to a subordinate place. Of course, the statement that a certain photograph has been taken at so many magnifications is of small use, and conveys no information. The focal length with which the result was produced is of far more service, but still it should not be forgotten that the mere statement of the focal length does not necessarily mean quite the same thing as it does with a lens of ordinary type. Though a telephoto lens may be working at, say, 25 in. focal length and aperture *f*/32, yet, as pointed

out by Dallmeyer, it does not follow that it is giving precisely the same result as an R.R. of that focal length and aperture. Therefore, it will always be desirable to describe the result as a telephotograph rather than as a simple photograph made with a focal length of 25 in.

There is also a danger that dropping the word magnification may lead to a misuse of the apparatus. Already many are under the impression that exposure, etc., can be calculated in accordance with the focal length and aperture of the complete objective, in just the same way as with an R.R.

They do not work in this way simply because the magnification method is easier in practice, and they have failed to find out that the magnification method is the only one that is correct in all circumstances. This method was very cleverly devised by Dallmeyer to get over the trouble caused by the essential optical differences between a telephoto lens and an ordinary doublet. All the differences are automatically allowed for so long as we keep to the magnification method of calculation, while if we drop it in favor of focal length and aperture the discrepancies become considerable when the subject is only a short distance away.

For distant work alone it does not much matter which we employ, but it is, in our opinion, far better to keep in all kinds of work to the one method that is theoretically accurate. We do not understand Captain Wheeler to advocate the abolition of the use of magnification in practical calculations, but we fear that this is just what would occur if the use of the word were to be deprecated.

Many workers have devoted themselves to the investigation of various methods of reversing the photographic image, and in most cases they have confined themselves to modifications of the method commonly used with Autochrome and other screen plates. M. G. Balagny, dealing with this subject before the Congress, advocates making the second exposure before the primary image is dissolved away by the acid permanganate, or other solvent bath used, on the ground that the silver image then protects the underlying silver bromide, and so prevents fog. He draws attention to the fact that it is necessary to protect the back of the plate during the second exposure, and appears to think that no one has previously drawn attention to this fact. Such protection, however, was one of the essential details of the reversing method worked out by the late D. J. Carnegie. In Mr. Carnegie's method the solvent used was bichromate and nitric acid, which left a temporary red image that served the same purpose as the silver image in M. Balagny's method. Great stress was laid on the method of illumination for the second exposure, the protection of the back of the negative being specially insisted upon. It will be remembered that Mr. Carnegie ultimately found that the process was greatly simplified by making the first exposure through the glass of the negative, as suggested by Mr. Arthur Payne. Apparently Mr. Balagny does not follow this method, though it is obvious that it greatly facilitates the after-clearing of the image, if clearing is required.

A further note by M. Balagny deals with the production of reversal from underexposure. In this case normal development gave an underexposed negative, while continued development for thirty hours gave a positive. This seems to suggest that very prolonged development has almost the same effect as very prolonged exposure, though that is a phenomenon which we cannot pretend to understand. The experience is such a curious one that we should like to see it repeated before attempting to suggest an explanation.

PHOTOGRAPHY FOR TEXAS WOMEN.

THE College of Industrial Arts, Denton, Texas, is now offering a systematic course in practical photography. A strong faculty of specialists will do the teaching. This is a State school. No tuition is charged.

The art of photography as a vocation is well suited to women, and is more remunerative than many of the more common occupations. The woman who is a good photographer can always have employment. They are in demand.

The work is fascinating, elevating, and ennobling in its tendency. It cultivates the best traits of character. A woman's natural delicacy of touch and acute sense of the æsthetic counts for much in the making of a picture.

The object of the course is to prepare the student for conducting a photographic business of her own. The course is practical. The student learns by doing the work herself. The lectures and demonstrations by the instructors are only in the nature of criticisms and suggestions. The student spends a large part of her time each day in making photographs.

The time required to complete the course depends largely on the ability of the student, but, as outlined, it covers a period of nine months.

The equipment of this school consists of the necessary apparatus for gaining a working knowledge of the various branches of the photographic art. The operating room is equipped with good portrait, view, copying, and enlarging cameras and lenses—the same grade of apparatus as that used in the best modern studios. In this room instruction is given in posing and lighting. Here the student learns the control of the lights and shadows: the use of backgrounds and reflecting screens; and the skilful manipulation of the portrait camera.

The fundamental principles of picture composition will be studied in a special course in the Fine and Industrial Arts Department of the college.

The developing rooms are conveniently arranged, having a sufficient number of sinks, hydrants, ruby lights, trays, tables, etc. Ventilation is provided by trap openings in the walls and electric fans.

The Chemical Department is supplied with chemicals and apparatus for studying the action of light on the salts of silver. Here the student learns to make developers, toning and fixing baths, and gains a practical knowledge of the numerous chemical compounds used in making photographs. A knowledge of the properties and uses of these chemicals is considered an important part of the photographer's education. In this department the student studies the physical and chemical properties of light as applied to photography.

Any photographer who knows of some worthy and capable young woman who would thank him for telling her about this school, write her name and address on a card and mail the card to College of Industrial Arts, Denton, Texas. Ask for a descriptive bulletin of the course in photography.

A Formula for a Permanganate Intensifier.—The *Photo Revue* gives the following formula for a permanganate intensifier: Immerse the negative for three minutes in

Water	4 oz.
Hydrochloric acid	16 drops.
Potassium permanganate . . .	32 gr.

When the plate has become deep red, wash well, and reblacken with a developer (such as amidol or M.-Q.).

WINNING CONFIDENCE AND HOLDING TRADE.

BY ROBERT E. CARL.

[THE following remarks of Mr. Robert E. Carl, the well-known Cincinnati photographer, on "Winning Confidence," reprinted from the *Association Annual*, are the results of practical and successful experiences. Their application to your business may help to increase it.—ED. W. P. M.]

Nothing Atones for Inferior Work.

Obviously your request is broad in its scope; and to cover the ground fully would require some treatment—however condensed it might be—of the three essential factors of successful merchandizing; namely, product, salesmanship, and methods of exploitation.

The most fundamental thing in successful photography is, of course, work that pleases. No amount of highly specialized stunts in salesmanship; no methods of exploitation through street car advertising, newspapers, or other mediums, no matter how cleverly done or aggressively pushed, can atone for inferior work in the studio. The first duty of the photographer, both to himhimself and to his constituency, is to "make good." But the writer assumes that this fact has become sufficiently domesticated upon the noggin of the modern photographer to require no further emphasis here.

Another prime factor is salesmanship. Here we have a broad, suggestive term. Salesmanship is not confined solely to the sort of talk the receptionist puts up in exhibiting specimens, describing the character of the work, and quoting prices; salesmanship includes deportment of everybody in the studio, from the boy who runs the lift to the operator who plans the sittings. It embraces the atmosphere of the studio; for everything and everybody in and about the place makes an impression—either favorable or adverse—upon patrons, visitors, and possible customers. Courteous treatment, civility, patience, willingness to please at whatever cost of time and effort—all this and much more—enters into that vast, complex, but all-important concept—Salesmanship. It is one thing to book an initial order; to convert a transient customer into a permanent one is another proposition. To take a customer's order for a certain style of picture at $3.00 per dozen is one thing; but to talk the better values, to sell a $5.00 or a $10.00 picture where a $3.00 one is called for—that is salesmanship.

But quality and salesmanship are subjects that have been pretty generously discussed in our conventions and technical publications; so with this brief reference to the first two essential factors of successful photography, I now propose to dwell somewhat at length upon the third; that is, methods of exploitation.

As a practical photographer who has acquired whatever he knows of the business from the only legitimate source, namely, the hard knocks of actual experience, I make bold in saying that the average photographer has been prosaic, fossilized, limited in his vision, stuck fast in the deep-worn ruts of antiquated customs.

I look upon photography as a business. The sentimentalist, in whom the so-called "artistic impulse" preponderates, may regard it as an art if he so desires; but it is at all events an art with

a decidedly commercial phase, or side; and it's a cinch there's none of us in the so-called art for art's sake alone. If photography is a business, then it is amenable to the methods and principles which determine other business enterprises; therefore, it recedes or advances according to the immutable loss which determine failure or success in other commercial enterprises. Confessedly "the artistic side" of photography is important, but the photographer is something more than a mere artist whose function it is to create; he is also a business man, whose province it is to sell. Too often the photographer has experienced a lop-sided development; the artistic side has progressed at the expense of the practical or commercial.

To prove my point, permit me to call attention to the fact—well known to us, but not so generally known to the public—that photography has made prodigious progress during the last ten or a dozen years. If one desires to make the development even more marked, it is easy enough to go back to the daguerreotype of the first half of the nineteenth century. The progress made in our profession is phenomenal. Though our inventions and discoveries are not as spectacular as wireless telegraphy and the aeroplane, they are none the less valid and fruitful. But what does the average layman know of specific advancements made in our line during the last decade? Practically nothing. He is wholly deficient in exact information. His education in this particular has been neglected, and we ourselves are to blame.

If photography is a business, then it is strictly up to us to exploit our business in harmony with the methods and principles of the modern advertiser. And, broadly speaking, how does the publicity man go about the job? In a word, by turning on the limelight. Modern advertising disseminates businesses. Take, for example, the advertisement of the present-day "specialty" shoe. It tells the whole story, beginning with the kid in South America, the colt on the steppes of Russia, or the calf in Texas, and goes right on through the tannery and the modern shoe factory, describing in detail the various operations from the cutting room to the shipping department. It pictures to the eye that which it describes to the imagination—with the result that the layman who reads, even though he never visited a shoe factory in his life, has a pretty concise knowledge of the whole shoe business. Style features, wear features, fitting qualities, and all other and sundry of the good qualities (actual or imaginary) that are supposed to inhere in footwear are stamped upon the cortex of his brain so that he cannot forget it.

Now, my contention is that the story of modern photography is just as interesting, just as instructive, just as important, as the story of latter-day shoemaking. But we haven't told the story. We have neglected in a deplorable manner the educational factor in our advertising.

We have not yet begun to realize the tremendous importance of modern methods of exploitation. We need to study the entire field of modern publicity in the light of the best exponents of present-day advertising in other lines. When we do this our advertising will take on new life. It will then make its appeal with increased cogency, gain in convincing qualities, and vindicate the advertising man's oft-repeated slogan, "it pays to advertise."

The desire for expansion is a simple and legitimate instinct of growth; and the time has come when we inevitably associate business expansion or growth with advertising methods. It is true enough that the photographer who advertises takes business from the photographer who does not advertise—or from the one who advertises in a desultory

and inexpert manner; but the prime purpose of all advertising is *to create more business.*

The Prime Purpose of Advertising is to Create More Business.

And this idea gives rise to another—the photographer's field is a vast field, and one might say without much exaggeration, almost untouched by modern implements. The amount spent *per capita* during a year for photographic work is ridiculously small compared with amounts spent for other commodities apart from the necessities of life. It is safe to say there are scores of families in every community of any considerable size which spend far more money during the year for chewing gum than they do for photographic work. Think of the vast volume of new business that could be developed—actually *created* in every community of any size—by judicious and aggressive advertising methods! When you consider this phase of the question, every advertising photographer is something of a pioneer in a vast, fruitful field, creating new business. When it is considered that a very large per cent. of the people now in middle life or in old age never had more than one or two photos of themselves during their entire lives—and a considerable proportion of them none at all—it will be seen that "much land remains yet to be possessed." Add to this the further consideration that a photo is, in the very nature of the case, a personality—a commodity outside of the necessities of life—and it will be seen that creative work in the way of persistent advertising is absolutely necessary to secure the maximum results.

From what has been said in the foregoing I think it must now be apparent that the photographer ought to advertise; the only question remaining for discussion is, Can the photographer advertise successfully? That is, is photography an advertisable proposition? I contend that it is. Photographic work of real merit affords the advertising expert a most attractive and fruitful field for exploitation. As compared with novelties, household necessities, cooking utensils, and the hundred and one prosaic commodities nowadays advertised in street cars, newspapers, and literary magazines, photographic work is far more susceptible of exploitation. The motives to which appeal may be made are both more numerous and more intimately related to abiding human interest. The advertiser has at his disposal an inexhaustible storehouse of broad, rich sentiment with which the body of his advertising appeals may be invested. The sweet and sacred amenities of home; the innocence and purity of childhood, with all the wealth of parental love; the elastic spirit of youth with the glow of health upon its cheek; the religious fervor of confirmation; the poetry and love of courtship and marriage; the joys of school life and college days; the lofty purposes and vaulting ambitions of graduation—this is but a partial list of those profound and intimately personal sentiments which may be built into the structure of our appeal.

Photography is an Advertisable Proposition.

"When one really comes to consider the vast possibilities of exploitation in our field, and then reads some of the dull, technical, stereotyped offenses created in the name of photographic publicity, one wonders why the photographer didn't turn the job over to somebody who knew how. On general principles it is poor economy to waste ten dollars' worth of time on a fifty cent job; but there is a more fundamental reason why the photographer cannot personally attend to the advertising end of his busi-

ness; he is too close to the business—he cannot view it in a detached manner so as to get the layman's perspective. He knows the various details of the business so intimately himself, it is difficult for him to realize that the man outside knows practically nothing of all this highly specialized work. For the same reason that the lawyer, the doctor, the clergyman, and the man of letters is generally an indifferent business man, the photographer is apt to be an inexpert advertiser. The very qualities which make him a success as a photographer militate against his effectiveness in the advertising field. For this reason I do not personally write my advertisements.

I do not even plan the campaign. I turn all this over to specialists in this line. I merely keep tab on results. The advertising investments which yield the largest results are continued; less profitable methods are dropped.

Another very pertinent reason why the photographer requires a strong ally in the person of an expert advertising man is the fact that his business has suffered at the hands of the amateur and the dilettante. Amateur photography was all the rage a few years back. Following close in the wake of the bicycle fad came the camera fad; and for ten or a dozen years the professional photographer suffered tremendously. But this fad, though temporarily injurious, was not without its good effects. In a way the amateur photographer was doing pioneer work: he was photographing picturesque nooks and corners in the out-of-doors, and people who never were photographed before; and all the while he was learning by his own indifferent results to appreciate good work, and intensifying interest in the professional field.

Now the reaction has come. Amateur photography is going the way of all the fads; and in going it is leaving a widespread deposit of potential business which the wideawake professional can capitalize most profitably.

When one comes to analyze the tremendous appeal which the general advertiser makes, on behalf of a given commodity, it will be seen that the strength of the appeal rests largely upon the individuality—feature or features of the commodity itself. It is something different; and these differentiating qualities—these things about the commodity which set it apart—and it may be anything from a safety razor to a leather upholstered chair—consti ute its selling points.

These are the things which make it superior to other commodities of like nature. Consequently, articles are trade-marked; and a certain invariable element of intrinsic goodness plus individuality is actually wrought into the commodity; and the manufacturer's trade-mark is the public's guarantee.

The practical photographer of today cannot afford to rear back on the haunches of his professional dignity and let the work of the studio exploit itself. There is a severely practical side to his business.

He must have more customers. To secure them he must go after them in the spirit and with the methods of successful business men in other lines. My contention is that he is not doing this, and the reason is, he has been so engrossed by the purely professional side of his work he has neglected the matter of exploitation. What he needs in attracting trade, booking orders, and creating more business, is a generous admixture of commercialism along with his professionalism. Profound belief in this proposition accounts for whatever success I have achieved as a photographer, and it also contains the sum and substance of my methods of winning confidence and holding trade.

THE LENS HOOD.

THE following abstract from the *Photographic Monthly* pleads strongly in favor of the use or re-introduction of the lens hood, which is commonly omitted in the most modern lenses. The reason for its omission is probably not so much the craze for smallness as the fact that most lenses are now designed so that they may be used as wide-angle lenses in large cameras. In view of this the temporary expedients described are, if anything, more convenient than the permanent hood supplied with old lenses, and probably also more effective.

The tendency of lens makers during recent years has been to reduce the size of the lens hood—that is, the small projection on the front of the lens—so much so that it is now almost nonexistent. The primary cause for this alteration has, we believe, been the demand for compactness, so that the lens may be fitted to cameras folding into the least possible space. Another reason is that, owing to the keenness of competition, manufacturers and wholesalers, even those with a reputation for high-class lenses, make lenses without hoods so as to save the little extra cost in manufacture, although we notice that a thread is always left on the inside of the front of the lens so that a hood may be screwed on when a customer demands it.

When working with lenses that are practically hoodless, in a situation with plenty of open light, the result is a tendency to lack of brilliancy in the shadows for the following reason: More light is admitted into the camera than is needed to cover the plate. These extra rays of light fall on the sides of the camera, and, in spite of the camera interior being a dead black, these rays are rarely all absorbed, but are more or less deflected and reflected according to the condition of the camera interior surfaces, and tend to fog the plate. This defect is more evident in cameras of the box-form or reflex type than those having camera bellows throughout. In cases where impurities of the black from such fogging are noticeable, some arrangement should be made for screening the lens. This can be done in several ways: A small projecting tube can be obtained to screw on to the front of the lens, or a cheap method is to obtain a piece of black velvet and to glue this on to a piece of thin cardboard. This can be fixed around the lens by aid of rubber bands, so as to make a small projecting tube on the lens. Care must be taken that this lens hood is not made too large, otherwise you will find some of the picture will be cut off. This can easily be ascertained by fixing your camera up, pointing toward the sky, and then looking on to the ground-glass. If the whole of the ground-glass is illuminated, you are certain that none of the field of view is cut off. Then pull the tube a little more forward until you begin to cut off the light at the edges of the screen. You then know that the tube is projecting too far, so push it back again until these edges are quite clear. You can then mark the correct length for the tube to project.

There is a right and wrong way to the velvet, which you should be very careful to notice. By holding the velvet-lined tube up to the light you will notice that one way it looks a dead black, whereas in looking through it from the reverse end of the tube you notice that the velvet is quite light instead of being black. This latter end should be outward from the lens, so that when looking through from the inside of the camera the velvet is quite black.

A FEW HINTS ON POSING MEN.

THERE are few things which the photographer is so reluctant to undertake as a half or three-quarter figure pose of a man. If you look over the work displayed at any studio, you will find that the portraits of men are almost invariably "heads." "You can do nothing with a man in everyday dress; he is so stiff and ungraceful," is the explanation generally offered when inquiry is made. One consequence of this want of courage is a lack of familiarity with the masculine figure, which, naturally, results in failure when work of this sort has to be made to order. The amateur, on the other hand, with his simpler and more direct methods, knowing nothing of that fear of the public which restrains the professional worker at every turn, tries all things, including figure studies, and hence his figure portraits are, as a rule, acceptably interesting. I would like to urge professionals to give more attention to this neglected field, as one which affords abundant room for their skill; and I will be glad, indeed, if anything in these hints will encourage my co-workers under the skylight to attempt the figure more often in their portraits of men. There is really no difficulty about the work which cannot be overcome by observation and practice, and, assuming a reasonable knowledge of composition, no branch of portraiture is more fascinating than the treatment of the figure.

In poses of men, where more than a mere "bust" is desired, the principal difficulty is to secure variety and naturalness without strain or affectation. This is, in part, due to the severity of the lines in masculine dress, and the self-consciousness (with its accompanying rigidity) of the average man when he faces a camera. These conditions being constant, the photographer easily falls into the employment, for all his portraits of men, of a few stereotyped poses which have been found to be acceptable. These stereotyped arrangements, which are well known, are the things most of all to be avoided, while, at the same time, attempts at novel or fancy poses should be shunned with equal aversion. Simplicity is the key to success. In portraits of men we want character and virility rather than novelty or prettiness. If we have strength and ease we can dispense almost with grace. If grace can be combined with these, so much the better; but the dominating qualities expressed in the pose should be strength and action, as befits manhood. If we look over a collection of portraits by modern painters (who necessarily give more study to the pose than the photographer has time for), we will find that in their portraits of men they rarely attempt anything beyond the simplest pose. Usually the pyramidal form of composition is adopted as most expressive of stability and symmetry; whatever grace the subject may possess is judiciously emphasized by convexity of outline, and long, flowing interior lines; the rest is accomplished by harmonious lighting and the obtaining of a characteristic expression to give likeness.

If a standing three-quarter or full-figure portrait of a man is desired, we must seek, first, an easy attitude; second, a pleasing variety in its lines; and last, but not least, a graceful disposition of the hands. The attitude should be characteristic; every man has his favorite poses, which he takes unconsciously when he feels "at home" in any place. Some of these lack grace, and the endeavor should be directed to finding which of the natural attitudes of the man is most graceful. This can most easily

be accomplished by allowing the subject to move about the room at his leisure, when his manner of carriage may be observed. It is folly to at once place a man in this or that predetermined position and "arrange" him to suit your notion of how he should appear. This can only result in awkwardness. In many of the portraits we see of men it is obvious that the subject has been made to take an attitude altogether strange to him, and naturalness cannot be expected under such circumstances. Another very important point in the disposition of the figure is to see that the subject does not rest equally on both feet—something which is wholly incompatible with ease. Attention to this will not only secure ease, but also give a greater variety of line to the pose. Speaking generally, old men give a better line when seated, and an easy-chair, with its ample flowing lines, gives to such subjects the graceful dignity which belongs to age. Younger men, especially those with slight figures, can rarely be made to look comfortable or graceful when seated, and, still, speaking generally, such subjects are best handled on their feet.

The placing and arrangement of the hands in portraits of men are matters of considerable difficulty. The first care, since they catch the light almost equally with the face, is to see that they do not appear exactly opposite to each other, or form any definite geometrical figure in relation to the face. When they are brought together care is needed to secure a pleasing outline, so that they shall not appear awkward in shape. Neither should the two hands be separately occupied, as this would draw more attention than they should otherwise have in a portrait and create confusion. Sometimes the hands are so placed that, even though both are not occupied, each attracts the eye. This can be avoided by subordinating one or both in tone or "value."

The general lines of the pose of a man should, of course, suggest animation, but too much action should be avoided. Remember that angles suggest action, unrest, and motion; vertical lines support; horizontal lines, or long horizontal curves are expressive of dignity and repose. An excellent method of studying the disposition of the masculine figure is a lay figure of small size.

The supreme interest in a portrait is likeness, the portrayal of personality. Our first care, therefore, must be to make sure that the attitude or disposition of the figure shall accentuate or harmonize with the character revealed in the face of the subject. The photographer labors under great disadvantage in this; he usually sees his subject for the first time at the actual time of sitting, and there is little opportunity to study what is characteristic. With the amateur things are different; his subjects are generally people with whose life and manners he is already familiar by association. Where these are not known, it is well worth while to delay the sitting a few moments, and by conversation or other means to cause the subject to forget the work of the moment and unconsciously express those little details of manner or attitude which "make the man." It is evident from this that the pose must be dictated by the nature of the subject, and herein we get our first glimpse of those principles which, to my mind, are of the greatest importance to the portrait—simplicity, concentration of interest, and subordination.

As to the various forms employed in the composition of the figure, I am not sure whether it is wise to say much about them here. The reader who will treat his subject with the aim to get grace of line throughout the figure, bearing in mind the elementary principles which have been referred to, should be able to get a pleasing pose without working for any definite form. The principal forms

are, however, the pyramid or triangle, which may be inverted, erect, modified in height or base width; the circle, ellipse, and an oval figure within a rectangle. Of these the pryramid is peculiarly adapted for the single figure, and has, in consequence, been overdone. The ellipse has advantages for large groups, while the oval within a rectangular space may be used for groups of two or three persons. It cannot be too strongly emphasized, however, that these forms should only be suggested when employed, and that their too close following in the contour of the pose gives stiffness and formality.

Attention should also be given to the proportion of space occupied by the figure within the confines of the picture, and to the shape formed by the relation of the outline at various points to the bounding lines of the picture. Large areas of background are usually to be avoided unless isolation of the figure is intended or desirable. Figures which are too large for the space they occupy are unpleasant; if too small, the effect is stagey. A little effort will enable the operator to choose both the place and proportion for the figure needed to produce the most pleasing effect in the portrait.

WITH THE MANUFACTURERS AT THE NATIONAL CONVENTION.

THE manufacturers' display at the National, at Milwaukee, was an exceptionally good one. Every prominent firm was well represented, and some very interesting displays were shown. The unusually heavy attendance of photographers, and the orders they placed, directly or indirectly, would well repay the efforts made.

The American Photo. Text-Book Co., of Scranton, Pa., did a good business with its up-to-the-minute *Cyclopædic Library*, through the persuasive powers of Messrs. J. B. Schriever, J. J. Barclay, and H. S. Colby.

The Ansco Company, of Binghamton, N. Y., had a splendid selection of prints showing the artistic and commercial possibilities of their Professional Cyko paper which is meeting with such popularity. The company was well represented by Messrs. G. W. Topliff, A. C. Lamotte, Chas. H. Anthony, Frank Leache, G. Cubley, W. Mussen Hearn, and Whiteman.

Berlin Aniline Works, New York, were represented by George L. Barrows. The drawing card here was the new *Agfa Book of Formulæ*, which is much in demand. Copies were given to all photographers who left an order on their dealer for Agfa specialties.

A. M. Collins Company, of Philadelphia, made a splendid showing of their well-known mounts, and were represented by their new sales manager, Howard A. Stone, and A. K. Boursault, advertising manager for the company.

G. Cramer Dry Plate Co., of St. Louis —as usual this stand was one of the busy spots of the convention. A handshake with "Papa" Cramer is one of the things no real conventioner would think of missing, Mrs. Cramer, of course, sharing the honors with "Papa." R. James Wallace, of the Cramer Research Laboratory, and a staff of demonstrators were on hand attending to the technical and selling departments.

Burke & James, of Chicago, represented by Henry Burke and David James, made a display of their new rapid printer and the Injento Lock Moulding.

Defender Photo Supply Co., of Rochester, made a good showing with

Argo, black and white and redeveloped sepia. Their new "Triple A" was on exhibition for the first time and gained much favorable comment for its strong resemblance to platinum paper. The company was represented by Frank Wilmot, president of the company; R. W. Palmer, advertising manager; J. Gallagher, of New York; W. Palmer, of Pittsburg; E. Connor, of Cleveland; Vroom, of St. Louis; Ennis, of Boston; and Dodge, of Chicago.

Bausch & Lomb did not make a display this year, contenting themselves by handing out a very handsome souvenir——a handsome portfolio of portraits made by their Unar lens, splendidly printed on Artura paper. Mr. Willis, of the Chicago office, was on hand to look after the company's interests.

The Eastman Kodak Co., as usual, made a very fine showing with their varied products. The Artura display included some of the finest work ever shown at any convention, and thought by many to be ahead of the pictures shown in the complimentary section. Angelo, E. B. Platinum, and Aristo were, of course, well to the front, as usual. The company was well represented by a large staff, headed by Messrs. Noble, L. B. Jones, and Ames, and including Harry Fell and "Joxie" Collins.

C. P. Goerz American Optical Co., of New York, showed a complete line of Goerz specialties and some unusual pictures. The Company was represented by its American manager, Mr. Fred Schmid. The Goerz souvenir, a fob with a Goerz lens as the dangler, was much in request.

Magnet Photo. Materials Co., of Boston, Mass., represented by C. O. Lovell, of dry plate fame, was showing a new plate that has been introduced for artificial light work, which is specially interesting in view of the increasing growth of artificial light studios.

Multispeed Shutter Co., of New York, made a good impression with its display of instantaneous flashlight pictures. Mr. Dietz, inventor of the Multispeed shutter, was on hand to explain its many good points to an interested crowd.

George Murphy, Inc., of New York, had a general display of photographic specialties, not forgetting the celebrated Ross Lens, in charge of J. G. Lavender.

The Seneca Camera Mfg. Co., of Rochester, had a fine show of hand and studio cameras that attracted considerable attention. President Goddard and Secretary Frank K. Townsend were in charge.

The Taylor-Hobson Co., of New York, represented by Messrs. Kelsey and Remington, were displaying the Cooke lens to great advantage. The handsome souvenir handed out by this company was a fine view of the world's highest tower—the Metropolitan Tower, of New York.

Sweet, Wallach & Co., of Chicago, had one of the most comprehensive displays of lenses ever shown in this country. Almost every make of lens was on view.

Wollensak Optical Co., of Rochester, made a display of photographic prints of celebrities made by some of the leading photographers of the country, and demonstrating the good qualities of the Vitex, Velostigmat, Series A, and the Versar. The company was represented by General Manager H. C. Gorton, assisted by L. W. Weil, and lens expert, J. G. Magin.

An Amidol Developer which Gives Strong Contrast.—The following is recommended as giving very strong contrast, and will interest those who like amidol:

Water	10 oz.
Amidol	24 gr.
Anhydrous sodium sulphite	80 gr.
Sodium bisulphite solution	1 oz.
Potassium bromide	20 gr.

Especially suitable for bromide paper.

NEW BOOKS.

With Other Photographers. By RYLAND W. PHILLIPS. Rochester: Eastman Kodak Co., 1910. Price, $2.50.

The Eastman Kodak Company has provided a sumptuous setting for Ryland W. Phillips' well-known and popular lecture, *With Other Photographers*. The book is in the nature of a personally conducted tour to the studios of famous photographers. The great advantage of the book is that each studio is represented by three or more illustrations. No. 1 shows the position of the sitter under the light, position of the camera, background, screens, etc.; Plate No. 2 shows a straight print from the unretouched negative; then No. 3—a large plate—shows the finished product as delivered by the studio. It is a method that leaves little to the imagination. The following studios are illustrated in the order here given: A. F. Bradley, New York (six plates); Mary Carnell, Philadelphia (5 plates); E. B. Core, New York (2 plates); E. E. Doty, Belding, Mich. (4 plates); Rudolph Dührkoop, Hamburg (3 plates); Geo. Edmondson, Cleveland (3 plates); W. S. Ellis, Philadelphia (3 plates); J. H. Garo, Boston (3 plates); E. Goldensky, Philadelphia (6 plates); Clarence Hayes, Detroit, Mich. (3 plates); Dudley Hoyt, New York (6 plates); Belle Johnson, Monroe City, Mo. (6 plates—cats); Frances Benjamin Johnston, Washington, D. C. (5 plates); Knaffl Brothers, Knoxville, Tenn. (3 plates); L. M. Koehne, Chicago, Ill. (3 plates); Chas. L. Lewis, Toledo (3 plates); Pirie MacDonald, New York (2 plates); Mary E. McGarvey, Bellefonte, Penna. (3 plates); J. E. Mock, Rochester, N. Y. (3 plates); M. B. Parkinson, Boston, Mass. (3 plates); Ryland W. Phillips, Philadelphia, Pa. (4 plates); Mrs. S. T. Price, Philadelphia, Pa. (4 plates); Blanche Reinecke, Kansas City, Mo. (6 plates); D. D. Spellman, Detroit, Mich. (4 plates); and Will H. Towles, Washington, D. C. (6 plates).

It will be seen that there is a generous number of plates, and when it is added that the illustrations are printed from splendid half-tone blocks, on rich india-tint plate paper, some idea of the rich quality of the book can be gathered. Mr. Phillips is to be congratulated on having his book published by the Kodak Company. It is a splendid piece of bookmaking, and of absorbing interest to every professional photographer.

The price of the book is $2.50, and can be had from any dealer or direct from this office, postpaid, on receipt of price.

The Photographic Annual, 1910–11: Incorporating the Figures, Facts, and Formulæ of Photography. Edited by E. J. Wall, F.R.P.S. Sixth Edition; largely rewritten and revised to June, 1910. 287 pages. Paper covers, 50 cents, postage 8 cents; Cloth bound, $1.00, postage 10 cents. New York: Tennant & Ward.

We note several changes in the new edition of this popular *Annual*, just received. The "Figures, Facts, and Formulæ" section has been thoroughly revised, and all obsolete or superfluous formulæ excised, by which this section has been compressed into two-thirds of the space it formerly occupied. This has given room for interesting new features in the shape of three detailed monographs on "Screen-plate Color Photography (Autochrome, Omnicolore, Thames and Aurora Methods); "Stereoscopic Photography;" and "Notes on Development." The treatment of these

subjects is comprehensive, with all the latest formulæ and developments. The useful "Glossary of Photographic Names and Terms," is retained, with a List of American and British Patents issued in 1909.

TRADE NOTES.

WITH the first touch of frost in the air the foliage will begin to take on its magnificent autumnal glow of color and the photographer will wish for a plate that would reproduce nature's coloring. With color screens and special color plates much of the color-value effects can be retained in the picture. The simplest and most effective ochochromatic plate we know is the Imperial Non-Filter Plate, manufactured by the Imperial Dry Plate Co., of London, England, and for which G. GENNERT, New York, is sole American agent. As indicated by the name, this plate is used without a filter or screen, so that it is unusually rapid and also highly sensitized to the greens and yellows. It is specially suited to foliage, and splended results can be obtained.

THE following letter, addressed to the MULTISPEED SHUTTER CO., New York, speaks very highly for the reliability of the Multispeed Shutter under trying conditions:

GENTLEMEN: I just returned from the first South American cruise made by the S. S. "Blucher," of the Hamburg-American Line, and I take pleasure in stating the experience that I had on this trip, which includes the Straits of Magellan, Los Andes, and the tropical countries as well.

The changing of temperature was noticeable every few hours, especially in the Straits of Magellan and Los Andes, and in taking my pictures I found that other shutters that I had with me, if they were set, say, for instance, for a snapshot, or one-fifth part of a second, they would sometimes give me as much as seventy-fifth part of a second, and *vice versa*, whereby I had to keep close watch and practically judge the time by looking first at the snap of the blades. Now, it may be of use to you to know that my Multispeed Shutter has never changed the speed that was meant and set for, no matter how different the temperature would be at any time.

Very truly yours,
(Signed) F. H. DE STEFANO.
(Formerly with *N. Y. Herald.*)

A Catalogue of Cooke Anastigmats for Fine Photography, with Helps to Photographers, is the title of the latest and most interesting catalogue yet issued by the enterprising TAYLOR-HOBSON CO., New York, manufacturers of the well-known Cooke lens. The keynote of this catalogue is its simplicity. One page to a lens, and each lens fully described as to the work it is best adapted to do, with sizes, prices, etc., all at a glance. The question, "What is an anastigmat?" is answered, and full instructions are given for testing a lens. A new Cooke lens, the Cooke Primo-plane lens, Series VII*a*, F./6.5, for extreme wide-angle work of all kinds, is listed for the first time. Beautifully printed, it is altogether an interesting piece of business literature. Copies can be had on request.

THE G. CRAMER DRY PLATE CO., of St. Louis, Mo., is to be commended for the efforts they are making to give the practical photographer the principles that govern the use of the isochromatic filter and plate. In this connection they have just issued from their research laboratory a booklet, entitled, *Isochromatic Landscape Photography*. A valuable section of the book consists of a series of questions and answers, from which can be gathered much useful information on color photography. The illustrations include a series of views showing the effects obtained with and without the aid of isos filters and isochromatic plates. An altogether invaluable book to the man who wants to render colored objects as correctly as it is possible to render them in monochrome. The Cramer Co. will be glad to mail copies on request.

WILHELM KNAPP, of Halle, Germany, has just issued a book on the reflex camera, that goes into the subject very thoroughly, illustrating and describing almost every reflex camera on the market. As showing the vogue of this camera, it is interesting to note that of the manufacturers listed there are sixteen from Germany, fourteen from England, and three from the United States. The book is printed in German, and the price is 2½ marks.

The C. P. GOERZ AMERICAN OPTICAL CO. report a very satisfactory and encouraging sale of their high-grade Anastigmats and Cameras. The volume of business handled by them this summer far exceeds that of the same period in the past few years, and they look forward to a corresponding heavy demand for their goods during the coming fall and winter months.

Notwithstanding the increased volume of business the firm has arranged that all of their employees receive the customary vacation with full pay, because the management feels that all the employees, the clerical as well as the factory staff —all who have helped to a successful result— should have a chance for enjoyment and recreation.

At the present time the optical department is away, and upon the return of this force the mechanical department will lay their tools aside to visit green hills and shady nooks, or to the seashore, wherever their inclination draws them.

Between times the clerical and supervising staff run off on a hunt for recreation, as it, of course, will not be possible to close the office for any length of time.

WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
MRS. EDWARD L. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

EDWARD L. WILSON, 122 EAST TWENTY-FIFTH STREET, NEW YORK
Entered at New York Post-office as Second-class Matter

Yearly subscription in advance, United States and Mexico, $3.00; Canada, $3.25; Foreign Countries, $3.50. Single copies, 25 cents. Subscriptions begin with current issue unless otherwise ordered. Original manuscripts on photographic subjects are solicited, and, if accepted, will be paid for on publication.

EDITOR'S TABLE.

THE jury of award for the Kodak Advertising Competition, which closes October 1, will consist of the following: Robert Frothingham, advertising manager of *Everybody's Magazine* and the *Butterick Trio;* Geo. H. Hazen, advertising director of *Century Magazine;* Walter R. Hine, vice-president and general manager of Frank Seaman, Incorporated, Advertising Makers; F. R. Barrows, ex-president of the Photographers' Association of America; Geo. W. Harris, of Harris & Ewing, president of the Photographers' Association of America.

Make a note of the closing date. If you have not already sent in your prints, do not delay. The prizes are generous and every man's chance is equal. A simple idea, simply expressed, has as good a chance, or better, than an elaborate one.

MR. JOHN JACOB BAUSCH, head and founder of the famous optical house of Bausch & Lomb, has just celebrated his eightieth birthday by donating $10,000 to the fund created by Mr. Henry Bausch for the aid and relief of such employees and their families as may be in need. Surely a splendid way to celebrate a birthday.

To show their appreciation of Mr. Bausch, the 1900 employees of the Bausch & Lomb Co., through a delegation, presented him with a solid silver cigar box, or humidor, 18 inches long and 12 inches high, made by Gorham, a fac simile in miniature of the factory in 1865. It was a simple, one-story structure, rectangular in shape, with a gable roof and two chimneys. This lent itself admirably to the purpose of reproduction. The roof forms the cover of the humidor; one chimney serves as a cigar-cutter and the other as a lighter. Over one of the two doors is the sign: "Bausch & Lomb, Optical Institute" as the company at that time called itself.

The inside of the cover bears a representation of the present plant and the following inscription:

"PRESENTED TO MR. J. J. BAUSCH
BY THE EMPLOYEES OF THE
BAUSCH & LOMB OPTICAL CO.
TO COMMEMORATE
THE EIGHTIETH ANNIVERSARY OF HIS BIRTH
JULY 25TH, 1910."

Mr. Bausch responded feelingly, recalling incidents connected with the little old building and the early days of his career.

By his benefactions and his considerate treatment of his employees, Mr. Bausch has always enjoyed the most cordial and mutually helpful relations with them. On the anniversaries of both his sixty-fifth and seventy-fifth birthdays he gave to each employee a week's extra pay in appreciation of their loyalty, and on the fiftieth anniversary of the founding of the company he celebrated it by reducing the number of hours of a day's work in the shops of the company from 10 to 9, continuing wages at the same figures. He is also a large contributor to a fund which is maintained by the Bausch and Lomb families connected with the plant for taking care of employees in need of special cases that do not come within the constitutional rights and duties of the Mutual Benefit Association, which is maintained by the company and the employees. Moreover, he and Captain Lomb privately and the company established in 1900 a fund to assist in providing a comfortable future for employees who have been in the service of the company many years. It is, in fact, a pension fund.

Mr. Bausch has been president of Mechanics Savings Bank for several years, and has long been its oldest director. He also belongs to numerous organizations for the promotion of public welfare in various directions.

WE note that the Photographers' Association of America has for disposal a few copies of their 1910 *Annual*, at $1.00 per copy, plus fourteen cents postage. This is surely the biggest bargain ever offered to photographers. The *Annual* has been justly described by all who have seen it to be by far the best *Annual* ever issued by the P. A. of A., and Mr. J. C. Abel, who arranged and edited it, is entitled to all the praise the book has won for him. The frontispiece in this issue of the magazine is one of the twenty-eight beautiful plates which illustrate the book. Send your check to L. A. Dozer, Bucyrus, Ohio, and secure a copy. You will never get a bigger dollar's worth.

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A NEW BOOK JUST OUT

"Photographing in Old England"

With Some Snap Shots in Scotland and Wales

BY W. I. LINCOLN ADAMS

Editor of "The Photographic Times," Author of "Sunlight and Shadow." "In Nature's Image," etc., etc.

THE record of a journey in England by a master photographer—a delightful record of the charm of Old England, accompanied by photographs remarkable for their beauty and for the exquisite reproductions here given. Mr. Adams' inland voyages took him from Windsor to Oxford on the Thames, to London and the Cathedral Towns, Shakespeare's Country, the Doones, Clovelly, the Lake Country, Scotland, and Wales. There is also a chapter giving many practical hints and suggestions for photographing abroad.

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Vol. XLVII ✣ ✣ ✣ ✣ No. 646

OCTOBER, 1910

WILSON'S PHOTOGRAPHIC MAGAZINE

DEVOTED TO PHOTOGRAPHY MONTHLY: ILLUSTRATED

$3.00 A YEAR
SINGLE COPY, 25 CENTS

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By Geo. Graham Holloway, Terre Haute, Ind

From "The Association Annual"

WILSON'S

PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVII OCTOBER, 1910 No. 646

THE COPYRIGHT LEAGUE.

AFTER many years of hard fighting by a small band of determined members of the Photographers' Copyright League of America, a fair measure of protection was given the photographers by the Copyright Law of 1909. This matter of simple justice to the photographer and his work was only won after a very strenuous fight.

But for the Photographers' Copyright League of America the photographers of America would have secured little if any protection from the Copyright Law of 1909. Very few photographers appreciate the fact that they owe to the League whatever protection they have for their work, through the operation of the new Copyright Law.

Many photographers who responded to an appeal by the League for a fund to secure just protection by the new law were surprised to receive a check from the Copyright League for their proportional share of the unused balance of this special fund. It was felt by many that a Copyright League to be of service to its members could use to advantage any unexpended balances. As the fund was raised for the purpose of securing a new Copyright Law, the bill having become law on March 4, 1909, it was decided by the officers of the League to return the unused balance to the donors *pro rata*.

Just as the American photographer needs the backing of the League, so does the League, to be of the greatest service to the greatest number, need a very largely increased national membership.

We would strongly recommend every photographer to read Mr. S. L. Stein's letter on the need of a strong Copyright League, printed below. It is full of practical suggestions. The need of a strong League is apparent; it can only be made strong by numbers. If you are not a member it is your duty to yourself and your profession to become one. A New York photographer recently remarked to us that the Copyright Law did not mean anything to the photographer. He had had his copyrighted pictures used by the magazines and newspapers without as much as a request to use or offer of payment for their use. This will continue just as long as the photographer is content to sit still and let the big fellow fleece him. A member of the Copyright League with an aggressive and competent Copyright counsel at his call, would be in a posi-

tion to see that his rights were not invaded.

You can secure full membership, with all its privileges, in the Photographers' Copyright League of America for a very modest fee. You secure protection for your own work and at the same time help every other photographer. That you have never copyrighted a picture is no excuse for not joining the League. You may need copyright protection tomorrow, and you should do your share toward conserving the law for full photographic protection.

THE COPYRIGHT LEAGUE OF AMERICA. A LETTER FROM S. L. STEIN, MILWAUKEE, WIS.

[WE commend the following letter of Mr. S. L. Stein to the earnest consideration of every professional photographer. A strong Copyright League is badly needed. This letter shows how to get one.—ED. W. P. M.]

MILWAUKEE, September 9, 1910.

Mr. Joseph Byron, Treasurer, Marbridge Building, New York.

DEAR MR. BYRON: I inclose you New York drafts of $8.90, $3.90 of which is for bill for copyright form books, which please receipt and return to me. The $5.00 is for a year's dues in the League.

Beyond all question, from my point of view, the League can only attain its fullest value on the basis of a large and representative national membership. Many members mean weight and influence; moreover, a big membership means a solid financial backing. We need both. With them the League may be a power; without them it is a little more than a nullity. Now comes the question, How are we to attain that desirable result?

The League should have an assured income of at least $5,000 a year. Two of the important measures it would make possible being (*a*) the employment of a Secretary, who should devote his entire time and energy to the voluminous League correspondence and the cognate duties that would inevitably accrue; (*b*) retaining the service of a competent copyright counsel, to whom all legal questions could be referred without charge to the individual members. Now, if the minimum annual dues are fixed at $1.00, a member roll of 2500 gives us a fair start toward the end we are aiming at. It is understood, of course, that any increased amount of dues is purely optional with any member. But, on a $1.00 basis, the revenue of such a member roll falls far short of what is needed, and makes it necessary to make up the deficiency by a call for extra contributions from those who most earnestly appreciate the task by which the League is confronted.

This plan, being dependent upon certain conditions, is not a satisfactory one, and it puts the League in the position of "passing the hat round" in a fashion that might not be hurtful to the feelings of a professional beggar, but is certainly not befitting the dignity of an important and self-respecting organization.

What is wanted—and needed—is a stable and assured revenue. Might it not be practicable to ensure it by a plan of graduated dues? It is only fair, anyway, that they who derive the greatest benefit from the work of the League should be the most liberal contributors to its support.

Most of them are already, and I feel little doubt that many of them would

engage to contribute dues ranging from $5.00 to $10.00 a year until such time as the increased member roll of the League would bring in sufficient single annual dollars to insure a good working capital.

As a means of obtaining the desired wider interest and support, I would suggest that each State organization take up the matter and join the League in a body. The trade magazines also should be interested and urged to boost the League and keep its work and aims in prominent evidence. They should be supplied with frequent items and articles on League matters, lists of members, copyright legislation, etc.

With best wishes for the League's successful future, believe me,

Cordially yours,

S. L. STEIN.

THE FIRST ANNUAL MEETING OF THE FEDERATION OF WOMEN PHOTOGRAPHERS.

THE first annual meeting and exhibition of the associated women photographers of the country has been pronounced by all as an unqualified success. The attendance was good and many new members were added. The exhibition was a matter of pride to the Federation and of sincere congratulations from the members of the National Association. The talk and criticisms by Miss Lena McCauley was interesting and helpful to those who were eager to benefit by expert opinion and advice. Best of all, however, the spirit of good-fellowship and professional respect, the stimulation of common interest and of new ideas which the meeting fostered, paved the way to greater accomplishments.

Every woman exhibitor cannot but feel strengthened by her part in this epoch-making occasion, and the Federation appreciates most heartily the coöperation of its members.

The prints were shown arranged on A-shaped easels, of about 3 x 4 feet, which were covered with green denim. The photographs were unmounted with 12 x 16 glass covers, the denim edge furnishing an agreeable framework. The easels were well lighted and the appearance of the exhibition was much commended.

Four classes of photography were represented: Pictorial (including landscapes), studio portraiture, home portraiture (which showed generally a strong decorative tendency), and animals. One interesting point developed was that few women specialized on animals in action, and, while most work of this class is perhaps too arduous for the average woman, the smaller pets afford a fascinating and almost unoccupied field for study.

At the annual meeting, which was held Thursday, July 16, the following resolutions were unanimously adopted:

To the Officers and Members of the Photographers' Association of America, Greetings:

WHEREAS, During the year past, the Photographers' Association of America has acted as sponsor for the Women's Federation; and,

Whereas, During this time, they have extended financial as well as hearty support and good wishes for the success of the organization; be it

RESOLVED, That our thanks and deepest appreciation be extended to the members and officers of the Photographers' Association of America; and, be it further

Resolved, That a special vote of thanks be extended its officers, who have had our interests so much at heart

and have been ever ready to aid us in every way; and, be it further

Resolved, That because of the kindly interest and helpful coöperation of these men, our first year of the Women's Federation owes its success; further, be it

Resolved, That these resolutions be spread upon the minutes of this meeting and a set forwarded to the President of the P. A. of A.

M. ESTELLE JENKINS,
Secretary and Treasurer.

It was also unanimously resolved that the warmest thanks of the Federation be extended to Messrs. Harry Fell and J. M. Bandtel for their unvarying and generous interest and their valuable practical assistance.

The election of officers resulted as follows:

President, Mary Carnell, 1314 Chestnut Street, Philadelphia, Pa.; Vice-President, Miss Belle Johnson, Monroe City, Mo.; Second Vice-President, Miss Bessie Meiser, 111 North Ninth Street, Richmond, Ind.; Secretary and Treasurer, Miss Maybelle Goodlander, 409 East Main Street, Muncie, Ind.; Chairmen of Sections: New England, Miss M. J. Hall, 1330 Beacon Street, Brookline, Mass.; Eastern, Miss Katherine Jamieson, 126 South Highland Avenue, Pittsburg, Pa.; Middle East, Miss Bessie Meiser; Middle West, Miss Mary Miller, Mattoon, Ill.; Southwest, Miss Blanche Reineke, 8 East Eleventh Street, Kansas City, Mo.; Northern, Miss Bessie Thomas, Sheldon, Ia.; Pacific Slope, Miss A. H. Thompson, 253 Whitney Street, San Jose, Cal.

Mrs. Gertrude Kasebier, of New York, and Miss Estelle Jenkins, of Chicago, to the great regret of the Federation, were obliged to withdraw from office because of ill-health.

First in the plans for the new year comes a doubled membership list, to which every woman in the Federation is urged to contribute by bringing into the ranks at least one fellow-worker. It is hoped that the growing list will include the women who are engaged in illustrative, scientific, and commercial lines, as well as the departments already represented, that next year's exhibition may fully cover the entire range of women's work in photography. The Chairman of each Section and individual workers are considering practical methods of bringing together the women of any special section or locality for social intercourse, study and business coöperation.

The popular "Circle," improved in several particulars, will again stretch its magic ring from studio to studio. It will be managed by Miss Belle Johnson, of Monroe City, Mo., First Vice-President.

As a Federation and as individuals we are looking forward to a successful season. Did you ever stop to think what is "success?" It is not the fat bank account for which we are working, though good work never fails to command its price, nor are we striving to please our sitters with an eye only to that bank account; but above and beyond all, we should cherish the idea and the hope that we may put into our work something imperishable, whether it be the portrait of a winsome child, of reverend age, of the wise or beautiful face, or of an exquisite moment in sky or field. Even in less poetic channels, the accurate transcript of some matter of intense human usefulness is worth while. We should strive to embody something of living, permanent value; something to outlast ourselves and our ambitions. If we do this, even in a small measure, we have found a success greater than moneyed wealth.

The Women's Federation needs as members every woman photographer. Every woman photographer needs, vitally, the Women's Federation. By giving little, you will gain much; a little

time, a little work, a little money, is all the investment needed. Last year we could only hope and promise. *Now we know*—that the Federation can help women to gain and maintain their proper place in the business and professional world; that the facilities afforded by the Federation can and will raise the standard of its members' pictorial productions; that the associations and friendships formed, the interchange of ideas among the members, are a help and value not easily calculated; that the knowledge gained by the individual member from comparing her work with that done by other women is a spur and incentive all through the year; that the interchange of prints among members is another important and valuable opportunity for comparison and criticism; and also that the nearly three hundred prints shown at Milwaukee *proved* what some believed, but none knew, that the best of our work was equal in artistic conception, technical handling, and competent execution to any shown.

Our plans for 1911 are more ambitious than ever:

Twice as many members;
Twice as large an exhibit, and
Twice as good.

To achieve this we must have the earnest help of every member. All who know women who are eligible as members, but who are not members, must urge them to join. Explain to them the hope and advantages of the Federation, and send their names to your officers, so that they may be officially urged. If you are a member of the Circle, forward your print promptly to the next member. If you do not, you will be fined, as you will see by the slip attached to the print.

Finally, remember that but little was expected of us in 1910, and that we so far exceeded their expectations and our own fondest hopes, that much will be expected of us next year, and that it is only by the continued interest and earnest endeavors of all our members that we can fulfil these expectations.

BELLE JOHNSON,
Vice-President.

BUSINESS GETTING.

BY CHARLES L. LEWIS.

"THERE is no doubt but that a goodly number of talks could be given on the subject of business getting from the viewpoint of a photographer, and that each might cover the subject in a manner distinct and peculiar to itself. Many men are of many minds and there is no royal road to fortune and success, else everyone would be wending his way upon it, to the confusion and detriment of all travellers.

"The personal equation enters largely into the explanation of the success of men in the various fields of endeavor. Some photographers who know not, are no doubt doing a lively business with a clientele that knows not, and are counted as successful, and yet their methods of doing business could in nowise be set down as a bright and shining rule, to be followed by other men of entirely different quality of brains and ability. The man who will thrive in one community may starve in another, and so it is, there must be different methods for different men, for different localities, and for different publics.

"The small town man may have to cater alike to rich and poor, the cultivated and the ignorant, the artistic and

the great army of those endowed with exceeding poor taste. A man so situated must be possessed with an acrobatic mind to be able to cover even the small field before him. In large communities there are large enough classes of citizens in each category to allow photographic workers to specialize.

"The doctor in a small town must be a general practitioner; in the large communities he can devote himself successfully to one particular branch of his profession. Within the memory of living men a millionaire was a scarcity and his name was mentioned with awe and reverence; today millionaires, multi-millionaires, and families with yearly incomes of millions are found sprinkled generously in every city block. We have passed the period of corduroy roads and have entered upon an era of great fortunes, general education, and much culture.

"Every town holds enough people who appreciate the best that the world can give them, and who are able and willing to pay for the gratification of their good taste; therefore, I believe the photographic workers will each reach their own particular level, which level is fixed entirely by the quality of their individual brains and abilities. The young man, the middle-aged man, and perhaps even the elderly worker in the photographic field, should endeavor to develop the best that is within him, and in these days, for the best, he will receive ample reward.

"At the same time, while striving for the big things, the little ones must not be overlooked, for in their sum they contribute in great measure to the success of a business, especially that of a photographer.

"The first of these details, the majority of which are perfectly apparent to most of us, is a cleanly and attractive studio. Perhaps we are not possessed of that good taste which instinctively creates attractive and artistic surroundings; but cleanliness all can comprehend, and it lies as close to art as it does to godliness.

"Cleanliness must not stop at the studio itself—and perhaps this admonition is not at all necessary—but must apply to the person and the clothing of the photographer himself and to his entire working force. The cheap trade will not, perhaps, mind a soiled collar, untidy finger nails, or grimy hands; but the better class of clients, especially if they be of the gentler sex, while they may, as become ladies, tolerate the association with such an operator once they are committed to a sitting, it is safe to say will not repeat the experiment. It is true, clothes do not make the man; but, combined with personal cleanliness, they go a long way in proclaiming the gentleman and inspiring confidence and respect.

"Good work attracts custom, good handling keeps it. Good handling is a matter of mind as well as of raiment. Some sitters must be made to talk, others must be talked to. The operator, to be able to draw out his sitter, must reach into his own mind for the material. Thus, meeting many people of varying types and interest, he should be well equipped mentally with material which should at least cover the main topics of thought of the times and especially of the day. No successful man can afford to vegetate, or bury himself in one channel of thought unless he is writing, working, searching, or building for future generations. The photographer may do some few things which may live long after he has departed; but he himself must perforce live and thrive today, and consequently must so order himself and his methods as to secure immediate and satisfactory results."—*Association Annual.*

REVERSAL OF THE IMAGE BY LIGHT ON GELATINE PLATES.*

THE reversal of the image by long exposure is known to most photographers of experience; but a few words explaining it may not be out of place here. No doubt every one of you has found that when a plate is much overexposed you have more difficulty in obtaining density in the image as the exposure is increased. This effect is most frequently seen in the skies of negatives, on account of the intensity of the light as compared with the light reflected from the other parts of the subject. Often a sky will print a fairly deep tint, not because it was so in nature at the time it was taken, but by reason of the overexposure of that part of the plate. This overexposure can be carried so far that the image does not develop by ordinary development. At this stage the image is said to have "reversed," because the scattered light reaching the adjacent parts of the film permits, or makes possible, the development of an image in those parts. I show you here some reversals made on "Ilford" plates some time ago. You will see that they are very clear. They were made by exposing the plate behind an opaque screen with diamond-shaped openings in it. The plates were exposed in printing frames placed horizontally in shade, clear sky above. The exposures were from one second to nine hours six minutes. They are all clear alike, were developed with hydroquinone, half the usual alkali, and three grains of bromide to the ounce.

Recurrent Reversal.

There is another effect to which the sensitive plate is subject, according to statements made by some experimenters —that is, re-reversal, or back to its first and normal state of the image. I have quite failed to produce this effect, for even on these two half-plates the exposure amounts to millions of times the correct exposure. The exposures were from 1 second to 32,768 seconds. Suppose we say that the correct exposure would be 1-100 second (but it would be much less), then we get by this exposure 3,276,800 times. Yet there is no sign of change from the ordinary reversal. I also show you exposures on an "Ilford Rapid" to clear sunlight. I must tell you these plates were backed with a good backing. This, of course, has prevented to a great extent the scattering of light. This plate received from one to eight hours' direct sunlight, adding many millions of times more over the correct exposure, and you see that they are all equally clear reversals. I therefore shall not believe in re-reversal until I see it proved, or I produce it. Reversal is as certain as the ordinary negative effect in a gelatine plate. The time required varies with the different plates, but not a great difference of exposure is required. The amount of silver in the film has, I think, something to do with the difference of time required.

Reproduced Negatives by Reversal.

Although in this paper I am not much concerned with the reversal of negatives in all their gradations, I will show you a few that you may see that it is quite practical. Here is a half-plate interior negative. With an "Ilford Rapid" plate I burnt a quarter inch of magnesium ribbon at twelve inches distance. This exposure gave this transparency, which is of nice full quality. The exposure was just close. I next gave an exposure to thirty inches at twelve inches distance. Here you have the result,

* A paper read by Mr. J. S. Teabe before the London and Provincial Photographic Association.

which is a very good reversed negative. Now it is quite certain in this case that the reversal had 120 times the exposure which the transparency had. This gives us some very fair comparison between correct exposure and reversal. It is not traced down to the last degree of exactness, but this is not necessary from the practical point of view, as I will show you. Here is one from the same negative exposed to sixty inches of magnesium at twelve inches distance. The development of this was evidently taken too far, as it is much denser than the original negative. This shows that, from the practical standpoint, double the exposure has done no harm. Here is another plate exposed to thirty inches of magnesium, cut in half, one half developed with hydroquinone, the other with pyro and ammonia. They are the same but for a slight tinge of yellow in the pyro-developed half.

I have now described and shown to you reversal by simple exposure and development. An idea of giving the plate a preliminary exposure to light was supposed to be necessary at one time for reversal. I have not found that it makes any difference, only so far that the preliminary exposure added to the exposure behind the negative must be sufficient to give reversal, or you will not get reversal. Here is a plate, "Imperial," 200 H.D., one-third of which had a preliminary exposure of two seconds to lamplight, then exposed behind negative with three lines of five spots cut in an opaque material. The exposure was 4, 6, 8, 10, 12 inches of magnesium ribbon at twelve inches distance. After that the other third had a subsequent exposure of two seconds to the lamplight. Plate was then developed with "Rodinal," 40 minims—1 ounce. You can see that the preliminary and subsequent exposure has had no effect on the reversal. On this plate you can see where the reversal comes in each line of spots.

An Explanation of Reversal.

We now come to inquire into the cause of this apparently reversing action of light. The explanation of the few experimenters who have worked at the subject is that the sub-bromide of silver is oxidized by the continued action of light. I have much experimental evidence against this; but it is my purpose in this paper to give you some proof of another theory. Some time ago I made an experiment, which I show you. An "Ilford Special Rapid" plate was exposed for reversal, cut in half, developed with hydroquinone developer. One-half, developed two minutes, gives full reversal; the other half, developed for one hour, has developed up to a density far greater than that required for any negative. This, I think, shows plainly that development was only temporarily checked, and this, I take it, is a very important point in the matter. Here is another plate, "Imperial," 275 H.D., exposed for full reversal, cut in two, and developed with "Rodinal," 50 minims —1 ounce to bromide ½ grain; the reversed half developed for three minutes, the other half for fifteen minutes. This half is so dense that you can see no image through it when held close to an incandescent gas light. This shows the powerful effect of this developer, which I have used for all the experiments I am about to show you. I wish you to understand that it is one of the worst developers for producing clear reversals; it is too active. I have used this developer to show that the effects are not due to weak or dodged development. I have strayed a little here from my point. We will go back to the last experiment. This development of the reversed image, I concluded, could only be accomplished by the developer acting upon that part of the film in the usual manner. And the reason for its not doing so before was that it was checked there.

My theory is that the gelatine is tanned by the bromide which is liberated from the bromide of silver by the exposure to light, thus preventing the ready action of the developer upon those parts acted upon by light.

Bromide and Gelatine.

I will show you some experiments which, I think, go to prove this action. Fortunately I have been able to make this effect visible to the eye. These plates have been exposed for three minutes in the shade behind opaque screen with spots cut in it. They have had no other treatment than being placed in water, as you see. I find that the plates, "Imperial," 200 H.D., will stand the temperature of 80° F. without frilling. Warm water is necessary to give the fullest effect. You will see that the gelatine swells all around the images where the light has acted. Evidently the gelatine has been tanned by the action of light, as nothing but water has touched it. And this action has taken place in spite of the drastic means used by the makers of the modern dry-plate to prevent frilling. I have a little experiment with gelatine to show how rapidly bromine will act upon it. Here are some pieces of opaque gelatine which have been soaked in water for two hours. A few pieces are placed in bromine water for two minutes. After this treatment the gelatine will stand the temperature of 130° F. without dissolving. A piece placed in the same water without the treatment with bromine water dissolves at once, as you see. This is certainly strong evidence of the action of bromine upon gelatine.

Now we will take another experiment. If bromine *is* liberated by the action of light on the sensitive film, and something is used (to bathe the plate) which has a greater attraction for bromine than the gelatine, this ought to prevent reversal. This, I can prove to you, is the case.

A Paget XXXXX is bathed in silver nitrate, 1 grain, water (distilled) 1 ounce, for three minutes, drained, blotted off, and dried in darkness. Exposed behind a screen negative for 1, 2, 3, 4, 8, 12, 16, 20 seconds to cloudy sky, midday. One second was ample for reversal on the unbathed plate. There is no reversal after development with "Rodinal." I have found that it is better to use the plate within an hour after bathing, as there is not the same tendency to fog. There are six more plates I showed you bathed in from 4 grains to 1 ounce up to 10 grains to 1 ounce. Bathed for five minutes, blotted off, and used within one hour. They are all on "Imperial," 200 H.D. I have no reason for selecting this plate, only, having them in stock, I am using them. All the plates were cut in two halves, being exposed for the same time, at the same time. The time varies from one second to twenty-one minutes, the printing frame being held horizontally facing the sky. All the images on the unbathed halves are reversed. All the images on the bathed halves are not reversed. Though, as I said before, the exposures were absolutely the same on the two halves of each plate. Developed in each case with "Rodinal," 40 minims —1 ounce water, bromide 1 grain. Here is another plate, cut in two, half bathed in silver nitrate, 4 grains, water 1 ounce, for five minutes, used twenty minutes after, and the two exposed together for scale of gradation; washed for five minutes before development. This shows, as you see, the same gradation in both halves, but a shade more density in the faintest tone, and a little fog on the part which had no exposure of the bathed half. This shows you the effect of the silver bath upon the plate for or against its image-giving powers.

There are many other baths which may be used for preventing reversal. It

will suffice if I give you one other. Copper nitrate has given me some good results. I find that this is best in its effect when the bathed plate is dried. Here are three plates, cut in two, one half bathed in copper nitrate, 10 grains, water 1 ounce, for five minutes. Exposures given from two to eighty seconds, developed "Rodinal." No reversal is shown on the bathed halves; but, instead of this, the spots show a full dense image.

To sum up the evidence given us by these experiments, we find that the reversed image is developable if ample time is given. Therefore it is only delayed by the tanning action upon the gelatine of the bromine which is liberated by the action of light on the bromide of silver in the film.

I have endeavored to arrange these experiments for the purpose of making the matter as clear to you as possible. The subject is a rather obscure one, and has been investigated by very few. If what I have said and shown you will assist you in your knowledge and use of the gelatine plate, my endeavors will not have been in vain.

PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF NEW YORK.

As I commence my duties as President of the Professional Photographers' Society of New York for another year, I do so fully determined to make this the greatest year in the history of the New York State Society. First, let our working slogan be: "Four hundred members by May 1." This can easily be accomplished with your coöperation. We also want to open the next State Convention with twelve sections, which means organizing four new sections before May 1. I appeal to you as a photographer, interested in your future success and in the future success of photography, to assist in forming a section in your locality. Constitute yourselves a Committee of One to call on your competitors and interest them in the State Society, and get them to take part in the work. During the year special educational meetings will be held in each section for the benefit of our members. Some of the most successful photographers in New York State will give demonstrations at these meetings and show you how they work.

They will inspire you to greater ambitions in your profession. A print exhibit from some of the best workmen in the country will be on exhibition for you to study. Brother photographers, a society carrying out a work like this deserves your coöperation. The men who give of their time and substance to assist in educating the less skilled to reach a higher degree of perfection are deserving of your support, and their unselfish work in behalf of photography should inspire you to greater effort in all ways, and especially in increasing membership in the society for which they are working. Membership in an organization, the prime object of which is mutual helpfulness, is a duty on the part of those engaged in the profession. If you are not a member become one now.

I wish every member of our society to feel that he is not only a part of it, but to feel the responsibility for the success of the Society. The special section meetings and the coming May convention will be full of new and original features never before attempted by a photographic society in America. It will make you proud that you are a member of the New York State Society and it will make you proud of your profession.

There can be no question of the great

good that is being accomplished by the get together movement, for everywhere through the State we see convincing proof that competitors can be friends.

Let us put our shoulders to the wheel and do our part toward building a powerful organization of photographers in New York State.

The Treasurer's annual report for the year ending July 1, 1910, showed the receipts to have been $1182.28 and the disbursements $1138.27, leaving a balance on hand of $44.01.

Cordially yours,

HARRY A. BLISS,
President.

THE HEIGHT OF THE CAMERA IN THE STUDIO.

MUCH is often said by those who write for the instruction of the portrait photographer on the choice of a lens of sufficient focal length—sufficient, that is, to force the photographer to place his camera at a greater distance from the sitter and so secure a perspective in the features which is of a less violent character than that which is produced at a nearer standpoint. That greater focal length means also, of course, a sufficient length of studio, or alternatively some annex to, or passage from, the studio into which the camera can be pushed back. As many photographers are not in command of premises which allow of this being done, the faults which their work exhibits must be put down to the circumstances under which, *faute de mieux*, it has to be done. There is, however, another direction in which the studio lens may be well or ill used in regard to which we hear comparatively little, and it is doubtful if the results thereof are recognised as widely as they should be by the portrait photographer. We refer to the height at which the lens, and, of course, the camera, is used in relation to the subject.

Those who make the human face their study in the studio and out of it know the great difference which a high or a low standpoint makes in the view one obtains of a person's features. On grounds of perspective a seated figure should be viewed (and photographed) at a lower level than a standing figure. In the former case one may take a height of about 5 feet as an average elevation of the line of vision from the floor, while in the case of a seated subject that height may be about 15 inches lower. In adopting these distances, as a rough rule of practice, we can feel assured that in the case both of seated and standing figures we are looking at our subject from the level which friends would most usually see them in the respective cases. With this rule, as with others, there are occasions when it is expedient to break it, and in so doing one needs to realize the notable effects of choosing a low or a high position of the camera. A low position, of course, is most commonly apt to be taken, either by design or unconsciously, when photographing a standing figure. Its effect is to give undue prominence to the throat, to afford too exposed a view of the nostrils, to bend the mouth downwards, to depress the forehead, to block out the contour of the back part of the head and to exaggerate the hollows under the eyes. On the other hand, with too high a position of the camera—from the necessities of the case, common only with seated figures—the reverse happens. The throat is compressed or may almost disappear, the nose appears unduly long and directed downwards, whilst the angle of the

mouth is distorted in an upward direction. The eyes, too, appear too deeply seated, and tend to acquire a narrow slit-like form, whilst the upper part of the head is brought into excessive prominence, giving, in the case of a bald person or one with little hair, a most unpleasant effect. The general effect, in the case of the low point of view, is to exaggerate the height of the sitter, whilst that of the high viewpoint is to give a stumpy appearance to him.

Photographers who keep their eyes open in studying the work of leaders in the profession, as they may do from the reproductions in this magazine, will readily see the advantage which is taken of these differences when dealing with different types of sitters. It is not difficult, indeed, to discover examples where the means at command have been used to an extreme. A small woman is frequently seen posed on a dais or at the head of one or two steps of a stairway, and, the train of her gown being brought round to cover the base on which she stands, she towers erect, a veritable Juno. One could point to photographs of Royal personages in which this artifice is employed to give a sense of dignity which would not be obtained in a photograph true to nature. Artists, too, usually place their models on a platform raised one or two feet above the floor from which the artist works, and they do this by design in order to secure an emphasis of the model's figure and features. To many photographers, of course, such a method is as familar as the multiplication table, and no doubt we could point to many chapters in past issues of this journal where the same thing is emphasized. But however far back we went we would probably not find the question more concisely put than in a sentence of the first president of the Royal Photographic Society, Sir W. J. Newton. We quote from the *B. J. Almanac* of 1886: "Whether the figure be standing or sitting, it is always better that the subject should be placed in an elevated position with reference to the lens, to be regulated according to the distance. This is the practice of all portrait painters, the reason being that the head appears more raised from the shoulders (which is more elegant); whereas if the lens be so placed as to point downwards on the head of the subject it gives the appearance, especially if near, as if the head were buried in the shoulders, which is always ugly and vulgar with respect to portraiture." Perhaps the writer is somewhat too absolute in his direction; he lived before the day of the lanky over-grown athletic girl, whose height frequently can do with some effect of reduction without a sacrifice of elegance. But we have said enough no doubt to point out to those who may have neglected this factor in studio work its importance in dealing with different types of sitter.—*British Journal of Photography.*

TONING BROMIDES.

You must start with a good original print. If the original shade is rich and transparent and intense in the ratio of from black to white, so also will it be after toning. "Muddiness"—I presume every worker in bromide knows well what I mean by that expression—clogged shadows, fogged highlights, gray or greenish blacks, etc., will be infallibly retained after toning, only to a worse degree. It is not a bit of use trying to tone a bad print, but still we do it. We

all do it, try to improve it by toning, but it is of no use. In small sizes it is well to make another print; but in larger sizes these defects may be very easily remedied either by the application of a cupric bromide intensifier or chlorinating the silver image by converting the silver into silver chloride and redevelopment. Here I may mention that treatment with mercury, which will form an amalgam with the silver, or by any other chemical forming with the silver, no matter for what purpose, is to be absolutely condemned. Hence mercury in any shape or form must never be used when toning is contemplated. For the purpose of clearing these rusty shadows, we will, first of all, deal with the cupric bromide bath—copper sulphate, 200 gr.; potassium bromide, 200 gr.; water, 10 oz. This solution keeps indefinitely, and may be used over and over again. The print is simply immersed in this solution, and the action that takes place is that the silver image is converted to silver bromide, and then back to silver by redevelopment. The process is rapid and simple, and may be carried out in daylight if intensification is desired, or in an artificial light if it is only intended to clear the print. After being immersed in this solution until bleached, the prints are washed in running water to clear them of all the copper solution. As it is absolutely impossible to get rid of all the traces of copper by washing, it is advisable to soak for about three minutes in 5 per cent. nitric acid. The image is now ready for further manipulation. For intensification, the print should be exposed to daylight for a few seconds, when it will assume a bluish tinge, and print out to a considerable extent. The print is now redeveloped in any good bromide paper developer (I prefer amidol), washed for ten minutes, and dried. For the purpose of clearing the print, the operations should be carried out in gaslight; otherwise they are just the same as for intensification. This is an invaluable process for rectifying flat and muddy prints, and should be far more generally known to the amateur than it is. As an alternative, the print may be chlorinated in a solution of potassium bichromate and salt, and redeveloped in the manner as before described: potassium bichromate, 90 gr.; concentrated sulphuric, 300 min.; salt, 1 oz.; water, 10 oz. If there is any difficulty in clearing the print of all the bichromate stain, the print should be immersed in any ordinary alum bath. There is, of course, no harm in fixing a redeveloped print, but it is quite unnecessary, therefore best not to do so, for the print should never be put unnecessarily into the hypo.

Having got a satisfactory looking print, we may now proceed to tone. First of all, I wish to bring before your notice the platinum toning, which is, in my opinion, the most useful of all toning processes. There is a tremendous range of tones obtainable from warm black to red; and the ease and certainty with which they are obtained should have made it more popular and more widely known than it is. The print is soaked until limp, and then immersed, with occasional rocking, in the toning bath—potassium chloroplatinite, 4 gr.; mercuric chloride, 3 gr.; citric acid, 30 gr.; water, 3 oz. Toning takes from ten to twenty minutes, according to the color desired. Enlargements may be economically toned by standing the dish at an angle of 60 degrees, and applying the solution by means of a broad camel-hair brush. No intensification or reduction takes place, the original scale of gradation being faithfully preserved in the final tone. I generally pass my prints, after a slight rinse, through a solution of 5 per cent. carbonate of soda, the tone of the print being much deepened, and it entirely clears the print from any stain caused by toning. Prolonged immersion in the soda w ll give

a double intensification of platinum and mercury. If the toned print be redeveloped, the original black color returns with a slight intensification, but of a much richer and purer black. With this toning process there is no need to spoil a single print; if you do not care for the tone, you simply redevelop it. The whole process is worth trying, if only for experiment. It is an invaluable method, and I think it is certainly permanent. The only danger is that the platinum must not be stinted; and therefore do not try to tone too many prints at once; otherwise insufficient platinum will be deposited, and the print will, of course, not be permanent.

Now I come to what appears to be the most popular toning process of the moment, that of converting the silver image into silver sulphide. This may be split up into two divisions—the direct and indirect methods. The direct method consists of converting the silver into silver sulphide by sulphuretting the image in a solution composed of hypo and alum. Different workers use different formulas, but, taking all things into consideration, the process is not worth bothering with. It is much better, in my opinion, not to use the direct process, and to rely entirely on the indirect, called indirect because the silver image is first converted into a silver haloid or ferrocyanide, and then easily converted to silver sulphide by some sulphuretting solution. The method is far simpler and easier to carry out than the hypo alum, and splendid dark brown or sepia tones can be obtained with uniformity and ease in the space of a few minutes, and there is certainly no risk of free sulphur, as is the case with hypo alum. Here I would like to impress upon you the desirability of using the original formula of Blake Smith, instead of the garbled editions of same. The bleacher is composed of iodine, 45 grains; potassium iodide, 100 grains; water, 10 ounces. The potassium iodide serves simply to dissolve more readily the iodine, which is very difficult to dissolve in bulk. When the action of the iodine is complete, the image will appear pale yellow against a dark blue ground. Next, transfer the print direct to a solution of sulphurous acid: sodium sulphite, 80 grains; sulphuric acid, 24 minims; water, 10 ounces, for about ten minutes. The print is then well rinsed and immersed in a solution of sodium sulphide. It is very important how this sulphide solution is made up: weigh out 1½ ounces sulphide, and dissolve in about 10 ounces water. Heat to boiling, stirring with a glass rod, keep boiling for about five minutes, and allow to cool, afterward filtering off the clear liquid. Then make up your solution to 12½ ounces. By this process of boiling you get rid of all the iron contained in the sulphide. In order to get anything like permanent results and satisfactory tones, great care should be exercised in the making up of this sulphide solution. Pure crystallized sodium monosulphide should only be used. This is the purest form of alkaline sulphide that can at present be obtained. After sulphuretting, the print is well washed for about thirty minutes. As I have before mentoned, the original development plays a very considerable part in the final tone, and to insure success a suitable silver image must first of all be developed on your paper. Over-exposure tends to yellowish tones, and in order to obtain good dark brown tones a fairly full exposure must be given, and developing out a dark vigorous image with a strong developer.

If it is desired to use any other bleacher than the iodine, the bichromate is the best I know. Potassium bichromate, 90 grains; sulphuric acid, 200 minims; salt, 1 ounce; water, 10 ounces. No sulphite clearing is required with this bath, the print being well washed for

about fifteen minutes before placing in the sulphide solution.

This sulphide process of toning, though, is open to objections, the most prominent of all being the smell of sulphuretted hydrogen given off by the alkaline sulphide solution, which is used to convert the bleached image into sulphide of silver. Another is the liability to give rather yellowish brown tones on gaslight papers, and also on bromide prints that are lacking in contrast. This great difficulty may be satisfactorily overcome by using an alkaline thiomolybdate. Taking ammonium thiomyolybdate $(NH_4)_2MOS_4$ as a typical specimen of this class, I find a freshly prepared solution is practically odorless, and that 60 minims of a 1 per cent. solution of it in water, 1 ounce, to which is added 5 minims of 0.880 ammonia, may be used in place of alkaline sulphide to tone the bleached silver image. After toning, the prints may be rinsed and placed in a dilute bath of ammonia (5 per cent. strength is usually suitable) for about five minutes. This bath renders the clearing of the whites by the final wash a shorter process, and twenty minutes in running water being, as a rule, quite sufficient. It is advisable to make up a fresh solution of thiomolybdate when required for toning, as if kept for more than a day or so the smell of sulphuretted hydrogen is given off. It is quite simple to mix up the solution, as the crystals are easily soluble in water. If we assume that a minim equals a grain, and take 1 grain of ammonium thiomolybdate crystals to 2 ounces of water, with 10 minims or drops of ammonium hydrate, this, though not quite in the above proportion, will be found quite near enough for practical purposes. It is better not to exceed this strength, as with some papers the film is so thin, and will consequently be so stained as to require a rather prolonged final wash. The toning action of ammonium thiomolybdate solution is apparently that of not only converting the bleached image into the usual silver sulphide compound, but also of depositing in or on the sulphided image a proportion of sulphide of molybdenum. This deposit of molybdenum sulphide is of great importance, as it enables bromide prints that are too flat in contrast to be satisfactorily toned to a fine sepia brown. Gaslight prints also take a much better tone with the thiomolybdate solution, the tendency to yellowish tones being apparently overcome.

With this thiomolybdate reagent, the best bleacher to use is the ferricyanide and bromide. With regard to the permanence of molybdenum-toned prints, I think they may be regarded in all respects as permanent as the ordinary sulphide-toned print, which has now stood the test of years.

While on with this process of sulphide toning, I think a word or two ought to be said with regard to Schlippe's salt. By using this Schlippe's salt as a reagent after bleaching, some very nice red tones can be obtained, but they must, I am afraid, be regarded with doubt as to their permanence. An image composed entirely of silver thioantimoniate would be, I have no doubt, regarded as an entirely permanent one, but the great fear is that a considerable amount of silver ferrocyanide or haloid remains unchanged by the Schlippe's salt, and consequently is free to decompose at will afterward. This difficulty may be overcome by treatment with a weak solution of sodium sulphide, the tone being, of course, slightly browner, but still a very pleasing change from the sulphide alone. However, a far better plan is, in my opinion, to mix the two solutions. If this is done, any color may be obtained from red to black.

This thiomolybdate toning is a most useful process, and is, in my opinion, the greatest advance in toning processes in

recent years. We are indebted for the process to Mr. H. E. Smith, who has, I may mention, provisionally protected the same. I understand that Messrs. H. Edmund & Co., of London, have placed the toner on the market in a handy and compact form, in the shape of Cubrome Thiomolybdate.

Try the experiments for yourselves, and I am sure you will be pleased with the results. Mix up 10 per cent. solutions of each of sodium sulphide and Schlippe's salt. First of all, bleach in the biochromatic bleacher, and tone in

Sodium sulphide solution	3 dr.	2 dr.	1 dr.
Schlippe's salt solution	1 dr.	2 dr.	3 dr.
Water	5 oz.	5 oz.	5 oz.

The proportion of the toning bath may be altered at will, and each worker vary the tones to suit himself. Prints should be on the dark side, if any, but very little is lost in toning.

Toning in gold after sulphuretting is often suggested, and I find some very fine tones may be obtained by this process. The sulphuretted print is immersed in a strong gold and sulphocyanide bath, *e. g.*, ammon. sulphocyanide 30 grains, gold chloride 3 grains, water 3 ounces. The print quickly assumes a rich red-brown tone, much richer and quite different to the plain sulphur tone. The print is afterward well washed and dried. As far as I can judge, the results are fairly permanent in tone.

In conclusion, with regard to the permanence of toned bromides, I have every reason to believe that all the processes I have dealt with are absolutely permanent.—F. J. WEBSTER.

A Hypo-Alum Toner for Bromides.—Our contemporary, the *Photo Revue*, states that the following bath has recently been found an extremely good one for toning bromides by the hypo-alum method of sulphuration:

Hypo	100 gm.
Pulverized alum	20 gm.
Crushed sugar	20 gm.
Boiling water	700 c.cm.

The hypo is first dissolved, then the alum, and finally the sugar. The bath should be used without filtering, at a temperature of about 25° C. or 113° F.

A Rodinal Stand Developer.—A simply prepared developer has been recommended for stand development, made with rodinal in the following way:

Mix rodinal	1½ drams.
With water	32 oz.

and add 75 minims of a cold, saturated solution of potassium carbonate. This formula has been tried with excellent results by Dr. Linden, who advises it to be used at a temperature of about 60° F. The water used should have been boiled for at least twenty minutes, and is always better if free from chalk; in other words, it is safer to use distilled water, and much easier then to obtain uniform results.

A Developer for Overexposed Plates.—The following is recommended as a suitable developer for plates which are thought to be probably overexposed.

A

Water	4 oz.
Sodium sulphite	400 gr.

Dissolve and add:

Hydroquinone	32 gr.

B

Water	3¾ oz.
Potassium carbonate	160 gr.
Potassium ferrocyanide	½ oz.

Two parts of water and one of solution A are taken, and the plate placed in it for about half a minute. Enough of B is then added slowly to just cause the image to appear, and development is then proceeded with as usual.

By Stearns & Wildermuth, Wilkesbarre, Pa

By Stearns & Wildermuth, Wilkesbarre, Pa.

By Stearns & Wildermuth, Wilkesbarre, Pa.

By Stearns & Wildermuth, Wilkesbarre, Pa.

A Good Idea from

ROBSON'S STUDIO, Petrolia, Ont., Canada

1. Majo

Illustrating Sidney Allan's Article

2. Donna Isabel
3. Donna Bermudez
4. Tadea
5. Marquesa de la Solana

Illustrating Sidney Allan's Article

6. King Ferdinand VII
7 Portrait
8. Juan Valdez
9. G. M. de Jovellanos

Illustrating Sidney Allan's Article

MASTERS IN PORTRAITURE—FRANCISCO GOYA.

BY SIDNEY ALLAN.

BORN in 1746 and painting most of his masterpieces previous to 1800 (although he lived until 1826), Francisco Goya really belongs to an earlier period than the majority of portraitists we have discussed in this series. Strange to say, he is as modern as any of them. There is nothing old-fashioned about his pictures. They look as if they were painted yesterday.

Goya was not much thought of until the "fifties." It was really Manet and the French realists who discovered him. Today he is the ideal of every young painter who prides himself on the cleverness of his brushwork—*i. e.*, the peculiar, individual way in which he handles his brushes and deposits the colors on his canvases. Goya in this respect is second only to Velasquez and Franz Hals. And his composition is thoroughly up-to-date, inasmuch as it was *impressionistic* at a time when impressionism was still an unknown theory to the codes of art.

Goya, in a way, represents the beginning of the entire modern movement. He was the first who laid special stress upon single-figure composition and the picturesque qualities of silhouetting, spotting, and space arrangement in portraiture.

No Old Master would have placed full-length figures (like Figs. 4 and 5) against a plain background in such a way as to suggest atmosphere and space around the figure, and thereby solving the same problem which caused Whistler so much trouble and anxiety. And no portrait painter of the past would have ever dreamt of making a large light plane of curious, irregular shape, such as we see in Fig. 1, the main attribute of a portrait.

There is much to be admired in Fig. 1, the portrait of a bullfighter; notably the unconventional pose, the naturalness of the facial expression, and the picturesque distribution of light and shade. The latter is controlled almost entirely by the outline of the head, arm, and bust. The light is massed together. It is concentrated upon one large, uninterrupted plane. The rest of the picture is dark, although translucent enough to show the interesting silhouette of the hat and the other shoulder. If you hold the picture two or three feet away from your eyes, you will realize the cleverness of the division more clearly. The picture "carries," *i. e.*, it can stand distance, as all good pictures should. Most pictures, if seen at a distance, become blurred and confused. They lack construction. In the Goya picture the shapes remain distinct; you see at the first glance, even if seen across a room, that it represents a person in a slanting position, with one arm leaning on something. Furthermore, you are fascinated by the irregularity of the light shape surrounded by darkness—it is agreeable to look at. The reason why it produces such a pleasing effect is difficult to explain in words. It is largely a matter of feeling. If a composition in black and white (aside from all subject matter) calls forth a pleasant sensation in the beholder, it is largely due to the skilful balancing of parts. There is something to attract the eye, and nothing to offend it. Fig. 1 is a masterpiece. None of the other illustrations show the same simplicity and perfection of handling.

"Donna Isabel" (Fig. 2) is a good example of contrast and spotting. Three bright spots, besides the larger plane of

face and bust, in a dark pyramidal shape, furnish the principal features of this composition. The most important note is the spot which is caused by the waist shimmering through the black lace mantilla. Cover it up, and you will notice its real importance. It lends nobility to the entire composition, much more than either the hand or the cuff of the silk sleeve. Some people might object to the plain background, but I do not believe that anything would have been gained by making it more restless. It concentrates the interest upon the face, and accentuates the outline of the figure against the background. The painter bestowed great care upon this outline. If it were simpler it would be too harsh. Its precision has been softened by minor undulations and a general zigzag tendency.

The portrait of Donna Bermudez (Fig. 3) is a study in values and texture. Its treatment is similar to that of Fig. 1. It also divides the area into two large parts, one light, the other dark, but they are not as clearly separated and as decided in shape. The figure, the lighter part of the picture, is one jumble of line and spots of manifold differentiations from pure white to a dark middle tint. But they pull well together; there is not a single accent that jars or obtrudes itself upon the eye. Few photographers ever manage to handle a loud dress with so much discretion. Even the garish embellishments of the hat do not harm the composition; on the contrary, they balance the heavy lacework of the skirt.

Figs. 4 and 5 are two interesting full-length figure compositions. The way in which Fig. 5 is lighted is particularly fine. The light strikes the upper part of the figure with full force and leaves the lower part of the picture in semi-darkness —light enough, however, to show the dividing line between the floor and background, and to permit the highlight in a slipper to accentuate the hem of the skirt. The picture seems to be flooded with light, and this impression is largely due to the contrast of the dark skirt and the gradations of the background from light gray to a solid black near the floor. The dark shading in the upper right corner also helps considerably, as it emphasizes the source of light more clearly. We know at once where the light comes from. I wish the same could be said of the portraits that are painted today.

In Fig. 4 we notice a rather restless background. The painter no doubt considered it necessary, as he treated the gown in a flat manner. Besides, the gown is light and occupies a large and most conspicuous part of the area of the picture. It had to be balanced somehow. A plain background would have looked absurd. The two dark accents of the scarf and hair are very effective. Peculiar is the scalloped effect of the outline of the hair. It proves that everything is possible pictorially if handled with some skill and discretion. If the outline were a trifle more pronounced, or the background lighter, the effect would be ludicrous. Goya was afraid of nothing. His boldness at times lends a touch of eccentricity to his work, but he generally mastered the problem which he desired to solve.

The concentration of light was Goya's particular strength. Few painters have ever approached him in this respect. Figs. 6, 7, 8, and 9 all show the same clever handling of light. Nothing more effective than Fig. 8 can be imagined. The light falls where it belongs—on the face, stock, and waistcoat. The bust is dark, with a few vague touches of light to accentuate its simple triangular shape. The background is in one tint, but a tint that consists of subtle variations that grow slightly darker toward the edges. The border at the lower edge has a decorative value. The shape of the bust would have been too large without it.

Also Fig. 9 is effectively lighted. Goya always shows the entire figure in a full-length portrait. He does not blur the lower part. He usually balances the light passages by decided dark accents, which in this particular instance occur in the buckled knee pants and shoes. Fig. 7 is similar in its treatment to Fig. 1, and Fig. 6 to Fig. 3. Each one affords ample opportunity for study.

Nearly every modern portrait painter has profited by Goya's knowledge of composition and the dexterity of his technique. He was a serious and truthful painter, with high ideals. Despite his love for novelties and sectional decorations, the human note is never missing in his portraits. The character, the personality of the sitter, is always present.

Goya's portraits are sympathetic delineations of the men and women of his time, human documents that speak for themselves, for their sincerity and directness are unmistakable, and if they are invested with an unusual amount of fidelity and distinction, it is because he placed qualities of mind above the wealth and brilliancy of his technical equipments.

CONTROL IN PLATINUM PRINTING.

THE most successful method of local development in platinotype printing by which the photographer can make his pictures represent more or less than has been recorded on the plate—in fact, just what he desires—is that in which the developer is diluted with glycerine and applied with a brush, writes Madison Phillips in a contemporary. Here one finds an almost unlimited scope for artistic and individualistic interpretation of the subject, and the worker of artistic temperament and manipulative capacity can make his finished prints practically as complete an expression of his ideas as if he had actually created the picture. Accentuating here, subordinating there, and at times almost, if not quite, obliterating superfluous portions, he works much as does the creative painter. In this article, however, it is not the intention of the writer to consider the artistic problems involved; those must be assumed by the photographer who makes use of the technical methods here suggested. Those, however, who are familiar with the use of the brush in water-color or in oil will, after a few trials, be rewarded with success.

In the platinum process the familiar yellow images seen after printing is only a provisional one in iron, since light has no effect upon the platinum salt in the sensitive coating. Development replaces the iron image with one of metallic platinum in like proportion with respect to gradation. The provisional iron image is completely soluble in the hydrochloric acid clearing-bath, so that any portion of the image, no matter how deeply printed, will, if not acted upon by the developer, wash out in the clearing-bath. Now it has been found that glycerine furnishes a physical protection from the developer. In other words, a developer containing glycerine acts more slowly than a normal solution, and the greater the proportion of glycerine, the slower the development. The application of this principle is of value for four principal purposes:

1. To vignette.
2. To check development in certain portions of the picture, in order to subdue too great strength or to emphasize other portions.
3. To entirely obliterate certain portions.

4. To retard the development of over-timed prints instead of using a weak developer.

With respect to the first case, it should be remembered that the vignette is a thing to be used with discretion, since it is adapted to comparatively few subjects. In portraiture, where only the head and shoulders are developed, delicate and dainty effects are obtainable particularly appropriate for pictures of children and young women. It is also productive of a sketchy decorative treatment, which is frequently pleasing in landscape and marine work, and is well adapted for decorating postcards and other objects of a more permanent nature.

A sheet of heavy glass will be required to work on, and over it spread some glycerine with a flat rubber-bound camel's-hair brush. Lay the print on this, face up, and see that it remains flat; now pour some glycerine on the face of the print and spread it thoroughly with the brush. After it has been allowed to soak in two or three minutes, remove any superfluous liquid with photographic blotters. Now coat with glycerine a second time, and in a minute or two blot off the glycerine on those portions of the print which require the most development. A solution containing equal parts of developer and glycerine is required, and should be applied to the blotted portion of the print with a round, rubber-bound camel's-hair brush about the size of a lead pencil.

The mode of treatment is to work gradually outward into the portions of the print requiring but little depth. Development will be slow, and it is essential that it be so in order that full control may be had. When the image is started it may be brought up more quickly with glycerine one part, developer three parts; but this applies only to portions requiring full development.

When any portion has acquired sufficient strength remove the solution with a blotter and coat with pure glycerine. This checks development so that the worker may devote his attention to other portions requiring further treatment. The first few prints made in this way will probably be failures, but after a little practice a large proportion of successful prints will be secured.

The thing to remember is to take plenty of time and use the developer sparingly. The brush should not contain more than enough solution to moisten the spot to which it is applied. When the development is complete the print should be removed to the usual hydrochloric acid clearing-bath and swabbed over carefully in the solution on both sides with a tuft of cotton. This prevents further development under the glycerine before the acid penetrates the print, and is a step which applies to all four applications of glycerine development here treated. The portions of the image protected by the glycerine and not acted upon by the developer will, of course, dissolve in the clearing-bath, leaving white paper.

In portrait vignetting most of the undesirable portions of the image may be obliterated in the printing; in fact, the completed vignette may be made in this way. The best results, however, are usually obtained by obliterating most of the undesirable image in printing and depending upon the application of glycerine as described above to secure proper gradation of the vignette. In printing, a mask a little larger than the image required should be placed over the printing frame, and a serrated mask should be held about half an inch from the negative. When the printing is almost finished take away the serrated mask and allow the action of the light to proceed without it.

The second application of glycerine development, by means of which prints

from faulty negatives may be improved and any portion of the image treated separately according to the result desired, is effected exactly the same as the first, unless the modifications required are slight and of a simple nature. If so, the portions to be checked may be coated with developer three parts, glycerine one part, and the print immersed in the normal developer until the checked portions reach proper strength. On the other hand, if intricate brush development is desirable, the proportion of glycerine may be increased up to ten parts to one of developer. Such a course causes development to proceed very slowly, giving ample time for careful and thoughtful work, and prevents the formation of lines on the print or spreading of the developer. This method is a favorite one for treating prints from negatives having too dense skies. In printing, the sky is brought to the desired depth, so that the clouds, if there be any, appear to full advantage, and in development the remainder of the print is held in check to prevent it developing too dark.

The third application opens up a field much wider than that of vignetting, and which is entered successfully only by those who have become adept in glycerine manipulation. Perhaps it is better, after all, to work upon the negative in order to obliterate unessential objects rather than upon the print, although such a course should not be pursued without experience, else a valuable negative may be ruined.

To successfully work upon the negative is a very difficult matter, although those who know how, often make contrary statements. The chief advantage of glycerine development is that if failure result in early attempts one still has recourse to the unharmed negative. The patient and skilled worker, however, can by means of glycerine hold back development in certain portions to make them match the tone of adjacent portions, thus obliterating some objectionable dark object; or, if the object is a light one, he can obliterate all detail from the undesirable portion and later fill in the space dexterously with a wash of water-color.

In either case there is great likelihood of complete success if papers of rough texture are used. Then, again, there are times when lines and masses, which are not in the negative at all, may be added to the picture to advantage, and it is wonderful what a clever worker can do in this respect by glycerine methods. It may or may not be advisable to coat the print with pure glycerine at the outset, and the portions of the image to be retained may be treated with the normal developer or a solution containing one-fourth glycerine. All this must be determined by the individual worker, since all depends upon the character of the effect desired.

As to the fourth method, there is no doubt it being the best way to retard the development of an overtimed print, for dilution with water often causes granulation of the print. Prints which have gone so far as to actually print out may often be saved by using a solution containing equal parts of glycerine and the developer. This is best applied to the print with a broad, rubber-bound camel's-hair brush, and care should be taken that it is evenly done and the pores of the paper filled. When the desired tone has been reached the print should be transferred to the clearing-bath as usual. If the print is only a little overtimed, one part of glycerine to four parts of developer will be sufficient.

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A MATT varnish for application to the back of negative is made as follows: sandarac, 1 oz.; mastic, 96 gr.; methylated ether, 10 oz.; rectified benzine (petroleum spirit), 5 to 6 oz.

VALUES IN PORTRAITURE.

In studying a picture we are apt to isolate the different parts of it and so direct our attention to them individually; so much so, that we often forget the relative tone of the whole picture. If we should construct our picture with only due regard to the individual forms, however much we might obey the laws of composition as regards balancing of lines, our production would be apt to present a very flat appearance; one part would not stand out against the others. So there ought always to be a balance of the masses in a picture as well as linear symmetry, and though it is almost impossible for the photographer to fall into the mistake of the pre-Raphaelite who perceived nothing of the value one object bears to another in the scheme of composition, yet there is danger, especially where the photographer has control of his subject, as in very many *genre* groups (not of Nature's making), of reversing the values and producing the very opposite of effectiveness. The modern tendency of artists on values is in the direction of less contrast than would have been accounted as proper thirty or forty years back; that is, the values are more delicately managed, especially in portraiture. There is seldom seen in modern portrait painting that great contrast which was deemed necessary at one time between backgrounds and head or figure study. The black of the dress of a lady, for instance, is not relieved by white lace trimmings, and the whole set against a gray ground to bring it out in relief, but painters nowadays prefer the ground but a very little lighter in tone than the drapery of the figure. To do this skilfully demands much tact to give any simulation of atmosphere between the figure and the ground and prevent a mosaic-like effect. But when skilfully accomplished it certainly has a peculiar charm of delicacy and lightness. In photography these delicate values are hard to manage, since the operator has not, like the painter, color to aid him in selection of scale of tone, and so it is that those who affect delicate values more frequently present smudge and flatness; but when secured, the photographs are as pleasing as paintings. We were recently looking at some very beautiful photographs of snow and ice, where we have white on white, in which the values were delicately preserved. A mass of snow in one picture was relieved against another mass of snow, but slightly differentiated from it in tone, but the effect was beautiful. The snow, practically speaking, was all equally white in nature, but the photographic artist in managing the values, contrived that there should be a difference in intensity between the broken masses of snow and the main body, and so secured a delicacy of relief without offending by heavy unmeaning shadows and glaring intense highlights. We thought photographers might here take a lesson in associating white drapery with light background, but a photographer who believes that the soul of photography is in what he calls brilliancy of effect would have been afraid of producing a flat-looking picture, and perhaps the majorlty of us would have gotten too tame-looking a study.

The study of values requires a great deal of practice of the eye, but it is a study we ought not to neglect, since values are the only means of artistically representing things.

SULPHIDE TONING OF BROMIDE PRINTS. A RANGE OF TONES FROM BLACK TO RED.

THE introduction of sulphide toning has given a great impetus to bromide printing. It has provided a simple method of securing greater variety in the prints, and of rendering effects which could not always be sufficiently well represented in the black tone of the ordinary bromide print.

Although a good pure black tone is a satisfactory color in itself, and always in good taste, yet there are very few photographers who would be willing to restrict their prints to this color only. Most wish for greater variety than can be obtained by working in one color; not only a greater variety in the general effect produced by a collection of their pictures, but, in addition, a greater power of rendering yaried effects and recording different impressions.

The method of sulphide toning which I propose to consider is that which consists in first converting the silver image into a haloid salt, and then converting the haloid into silver sulphide. For convenience of reference, the first part of the process will be called the bleaching, and the second the darkening. This method of transforming the image into a sulphide is in every way the most satisfactory. It is the most simple and the most certain, and the tones are the richest obtainable by any method. In addition, there is no reduction in the strength of the print involved by the toning operation.

The color produced by this method of sulphide toning is a very rich brown—a warm rather than a cold brown; but sufficiently deep to give great strength and richness in the shadows of a strong print.

Although this color is very attractive and very rich, it has seemed to me that the power of varying it would be a great advantage. The object desired was the power of securing a range of colors from a cold black to a red brown, and the ability to obtain any desired degree of warmth or coldness at will. In addition, the warm blacks should be brown-black, and not purple, an undesirable color, that is frequently seen in toned bromide prints. The colors should range from a pure black through brown-black, and pure deep brown to a rich warm brown or even red-brown.

Whatever color or degree of warmth is desired, that tone should be obtainable with absolute certainty. And the same color should invariably result from the same method of toning, even though the negatives from which the prints were taken might vary considerably in strength and quality.

Many workers experience difficulty in securing uniformity in toning bromide prints by the sulphide process; and it must be recognized that the first step toward obtaining various tones with certainty must be the power of securing uniformity in the tones obtained by the ordinary methods of working. If all the conditions are equal, any given formula for toning will invariably produce identical results. If, however, the conditions vary through imperfect working at any stage, the final color of the print must always be a matter of uncertainty. Two prints may look identical in color before toning, but though treated together in the same solutions throughout the toning operation, the ultimate tones may be widely different; one may be a purple-black, and the other a yellow-brown.

It becomes necessary, therefore, in considering the subject of toning bromide prints, to determine first the conditions that it is necessary to fulfil in

order to secure uniformity; and also the factors that affect the toning.

It is absolutely essential that identical methods should be adopted in the production of all prints intended for sulphide toning; otherwise it is quite impossible to secure any desired tone with certainty. The developer that it is intended to employ must be decided upon, and its composition and degree of concentration determined, and this developer must be used invariably. In bromide work the exposures must be made to suit the developer employed; modifying the developer to compensate for irregularities in exposure is never satisfactory. It is fatal to success in toning. When the character of the negative is such that a successful print can only be obtained by modification of the developer, the tones resulting from any formula must always vary from those obtained on prints produced under normal conditions. But there should be very few negatives that require any serious departure from the standard developer. By careful adjustment of the exposure, prints of uniform quality can be produced by means of the normal developer from negatives that differ widely in their degree of strength. Of course, negatives that have been very incorrectly exposed or developed will always be a source of trouble in any printing process, and bromide is no exception to this rule.

The strength or degree of concentration of the developer will affect the ultimate color of the toned print. A strong developer tends to produce cold tones; a weak or diluted solution will always give weak and very warm tones—brown tones with a distinct tendency toward yellowish-brown.

Bromide in the developer exerts a distinct influence on the toning, producing a warmer color than that given by prints developed without bromide. This influence is only serious if a large proportion of bromide be employed. Dilution of the developer and the addition of bromide together influence the toning considerably, producing a very disagreeable warm tone and distinct absence of strength in the print.

The degree of development does not affect the tone while the exposure remains unchanged. Two prints from the same negative, exposed for the same time and developed in identical solutions to different degrees, will both tone to exactly similar colors. The print which has received full development will, of necessity, be richer and stronger than that which has been developed for a short time only, but the actual color will remain the same.

Variation in the degree of development to compensate for errors in exposure does modify the tone, though the composition of the developer remain unchanged. The variation is due to the combined effect of alteration in exposure and difference in degree of development. Over-exposure and short development yield a warmer tone; under-exposure and long development a colder tone. An over-exposed print developed fully in the normal solution will show little, if any, difference from a correctly exposed print, with similar toning.

Reduction with hypo and potassium ferricyanide does not in any way affect the process of toning nor the ultimate color of the print. This fact, in combination with those given in the preceding paragraph, may be utilized in saving over-exposed prints. A print that has received too long an exposure should be developed for the full time in a normal solution, and, after fixing and a slight washing, reduced in the hypo and ferricyanide reducer. This solution affects the lighter tones more than the darker, and will convert a strong and dull print into one of correct contrast and brilliancy. The print will then tone in exactly the same manner as one that had been correctly exposed and developed.

Naturally, the degree of over exposure that can be compensated in this manner is very limited, and the method cannot be applied to harsh negatives. It can only be successful in the case of prints which tend toward a heavy uniformity of tone with over-exposure.

Considering that the correct or satisfactory rendering of tone values, the color and effect of the print, and also the successful working of the toning process, all depend on correct exposure and normal development, the greatest care should be taken to ensure the correct exposure for every print. This is not intended to imply any artificial standard of correct exposure, but that exposure which gives the effect desired with normal development. Systematic working is essential, a uniform light, and exposures registered so that correct repetitions can be made easily. A small slip of paper can be affixed to one corner of the negative, and the exposure noted thereon; and a good quick-printing negative selected for employment as a test for the light and for different batches of paper, from time to time.

Fresh developer should be used for every print. The practice of developing several prints in succession in one quantity of solution is a prolific source of want of uniformity, both in the general quality of the prints, and in their toning. It is false economy, as it results in a serious loss of quality. Sufficient of the normal developer should be taken for one print—or possibly two in the case of small prints where the quantity must be relatively large—and after using, the solution should be thrown away. A series of prints developed successively in one solution will show a very decided variation in color when toned by the sulphide process.

The developer that has been the most successful in my own practice is:

Diamidophenol	6 gr.
Sodium sulphite	36 gr.
Potassium bromide	1½ gr.
Water	4 oz.

Diamidophenol, dianol and amidol are very similar in composition and character. No alkali is necessary with either.

Unfortunately, the mixed solution will not keep long. It must be mixed as required, and used within a day or two of mixing. It may be prepared in a more concentrated form, and diluted for developing. The sulphite must be dissolved in the water first, and the diamidophenol and bromide added after the sulphite is thoroughly dissolved. The bromide is not essential. but it exerts a marked influence on the color of the print. Without bromide in the developer, the image is a blue-black. With the proportion of bromide given in the formula, the image is a pure neutral black, with silvery light tones. In either case the image tones well to a very rich color.

After development, the prints should be rinsed rapidly and fixed in a plain solution of hypo, about four ounces in a pint of water. The prints should remain in this fixing bath for about fifteen minutes, and care should be taken that they are always submerged, and that they do not cling together. Prints require far more attention when in the fixing bath than they usually receive, and it is necessary to call attention to this when writing on the subject of toning; for it may be safely asserted that nearly all the troubles that arise in toning bromide prints are caused by imperfect fixing or careless washing, and most frequently the former.

A perfectly fixed print, reasonably well washed, will give no trouble in any subsequent operation.—*Amateur Photographer.*

WORKING UP ENLARGEMENTS.

An enlargement is often disappointing at first from the way in which it enlarges and exaggerates defects, the result appearing coarse, especially when looked into closely, writes Raymond Deane, in *Photography and Focus*. Much of this will go unnoticed when it is covered with glass and hung upon a wall; but the amateur will very naturally desire to remove that coarseness as far as he can, and generally to improve his enlargement in the way the professional does. Such handwork is very rightly barred in a photographic exhibition, and it would not be wise to attempt it in work that was going into a photographic competition unless it was a competition run by some newspaper or other non-photographic publication.

The simplest form of working up is done with black lead powder and a stump or cotton wool. Not only can we take out defects in the enlargement, we can add a background of a simple kind with these materials without much difficulty. For instance, a single figure may have been taken out of a group either by blocking out the negative or by painting body color on to a print over the parts not wanted, and photographing it. The former method gives, of course, an absolutely white ground, the latter one of some even tint, according to the tint of the body color selected. In either case something to break up the evenness may be wanted; and this is easily supplied.

The surface is first prepared by sprinkling pumice powder over it, and then going over this with the palm of the hand with a circular, grinding motion. This gives the enlargement a tooth, and when the powder has been dusted off with a clean duster, it is ready to take the work we may choose to put upon it.

A little finely powdered black lead and pumice powder are mixed in the proportion of about two of the powder to one of the lead. The mixing should be done by sifting them together through a piece of fine muslin on to a sheet of white paper, and there must be no lumps perceptible. A little tuft of cotton is dabbed lightly on the powder and is then applied to a sheet of paper, and it will be seen at once that by giving it a light circular movement an even tint of a gray character can be applied just where we like. The cotton is then rubbed on the enlargement in the same way, and it will be found quite easy to give the background a clouded effect, which will relieve its blank monotony. The success of the treatment, even in unskilled hands, is quite surprising, but practice and taste give a still better result.

The beginner will find that he cannot do this without encroaching on the face, but that does not matter in the least; in fact, it is better to let the work go over the face, as then there is less chance of it giving the impression that the face has been avoided. When the work is finished it is quite easy to take any off the face with the point of a piece of ink eraser.

This mixture of black lead and pumice powder may be lightened or darkened by varying the proportions of the ingredients, and may be applied to other parts of the enlargement that require it, either with the cotton or with the tip of the finger, or with a stump. It will be found very useful for strengthening the shadows in clothing, and for toning down lights. If the enlargement is at all inclined to be hard, a cloth with a pattern may have that pattern very pronounced by the harshness of all the highest lights on it, and a rub over with

the powder will in such a case make a wonderful improvement. Any highlights which we want to leave as such are picked out afterward with the ink eraser.

Any fine work that is to be done on enlargements is best done in pencil. Water colors may be used, and the final result is better; but they are much more difficult to apply, and the beginner will ruin many prints before he succeeds in improving them with paints; whereas, with pencils, this is much easier. Special pencils are supplied for the work. The writer uses Hardtmuth's "Black Chalk" crayons, which can be bought in the form of cedar pencils, or, preferably, in a holder, with refils. There are several grades made, No. 3 being perhaps the best for a beginner. The pencil must be brought to as fine a point as possible by twirling it on a piece of glass paper, and the point must be kept in this condition by frequent applications to the glass paper.

The first use to be made of the pencil is to take out any little defects in the shape of white spots. The enlargement, which should have been rubbed over with the pumice powder, is gone over carefully and each spot evened down to the level of its surroundings by the point of the pencil. When the spots are larger than the head of an ordinary pin it is best not to attempt to fill them with lead, but to tone them down by a series of fine lines close together when a dark tone is wanted, further apart when it is to be lighter. It is much easier to get an even tone by shading in this way. It does not matter if, on looking into the work as the photographer bends over it, he can see the separate lines of his pencil; they will not be noticed when the picture is glazed and hung on the wall.

If there is any danger of work which has been done getting rubbed with the hand while other parts are being dealt with, a sheet of paper should be gummed to the top edge of the mount at the back, brought over and allowed to come down over the front of the enlargement, and holes cut in it to allow of the work being done as required. But it must be lifted up frequently to make quite sure that anything that is being done is in harmony with the general effect.

When shading has to start along a perfectly straight line, or along a regularly curved one, a piece of thin paper may be cut out to the line required, and held along the edge at which the shading is to start, so that the pencil strokes can start on this paper and then pass off on to the enlargement exactly where required. The paper must not finish actually on the line, but a very small fraction of an inch before, or the pencil lines will not begin exactly where they are wanted. A piece of paper may also be used to protect parts from the ink eraser, and in this way one can rub out right up to a definite line.

In portrait enlargements a good deal of work can often be put upon the faces with advantage, both to take out any technical defects in the enlargement, to hide any of the marks of the retouching pencil on the original negative, and besides this, to smooth up things and make the portrait a more flattering one. But such work as this last requires skill and practice, is of a more "advanced" kind than has been dealt with in this article, and will require separate treatment.

To Renovate Yellow Prints.—The following has been recommended for the purpose, and we have found it effective on certain occasions in dealing with old albumen prints:

Saturated solution of mercuric chloride in hydrochloric acid.....	8 minims.
Distilled water.....	15 ounces.

Immerse the print and remove it as soon as a purple tone has been acquired and the yellowness is discharged; then wash it thoroughly, and dry.

THE AMATEUR.*

THERE are a number of words of originally honorable meaning in our English language which have fallen from their high estate, and have become terms of reproach and even contempt. Among those that have undergone this transition to a certain degree is the word "amateur," which originally meant simply "a lover," or more particularly a lover of some pursuit or art for its own sake. Nowadays, to speak of any work as "amateurish" is to imply that it is the work of some futile trifler, who has never acquired sufficient knowledge or skill to make the pursuit intellectually respectable.

The higher arts have three classes of followers: First, the amateur, and in my remarks this evening I wish to use this term in its original sense, and by it to designate those whose love of beauty for its own sake impels them to attempt to interpret it, and conscientiously record the appeal it has made.

The second class consists of those whose sole purpose it is to make its pursuit the source of livelihood or gain; and these we may designate the professionals, but in so doing we must remember that the professional may be an amateur in the original sense of the word.

The third are the very numerous class who regard the pursuit merely as an idle pastime. These, however long they may have been engaged in it, may not merit any better title than novices.

We may perhaps claim that the pictorial development of photography is mainly of English origin, and also that for awhile England took the lead. Then came in the French with their brilliantly clever work, the Americans with their original outlook, and the Austrians and Germans with strong individuality of treatment. It is sometimes said with some reason, that the keenness of commercial competition in England at the present day has had the effect of making the nation hopelessly inartistic. This, at all events, could not be said of the former generation. The fine handicraft work and the beautiful architecture of the various cathedrals and other ancient buildings, give ample evidence of a sense of beauty and proportion which form models for imitation today. It may be that this appreciation of the beautiful has been only latent all these years, and that in pictorial photography it is at last finding some outlet. In most of the older arts the professional has led the way, and the amateur has taken a very secondary place. In photography the advance in the pictorial direction has been mainly due to the amateur. The professional has to look to commercial possibilities and supply the popular demand, which for the most part requires commonplace likeness and superficial prettiness. It has not been so much the fault of the professional as of the public. There are many professionals who have contributed their quota to the advancement of the pictorial side, but they have in all such instances worked as amateurs, not as professionals; worked to please themselves and not the public. It is a good sign that with the education of public taste, which is being accomplished by the numerous pictorial exhibitions held throughout the country, a demand has already been created for a higher class of work, and some have been able to do professional work in the amateur spirit.

The amateurs whose influence has been greatest in raising the standard of pictorial photography have not, as a rule, been men who had any great opportu-

* A paper read before the Royal Photographic Society of Great Britain, by Mr. Alex. Keighley.

nities of training in Art Schools, or of passing through the ordinary curriculum of the painter artist. No doubt all of them would have been glad to have had such training, and probably their work would have been benefited thereby. But time and opportunity would not allow. Most of them have been actively engaged in commercial or other occupations which left only a limited amount of leisure for pictorial purposes.

Hemerton says "that the education of an artist required seven years of labor when the whole time is given, being equivalent to 14,000 hours. He cannot learn to draw properly in less than 5000 to 7000 hours. The mere necessity of manual skill," he says, "is of itself enough to preclude success on the part of the amateur, while difficulties with regard to color demand the sacrifice of his entire existence." Accepting this dictum would mean that the Dream City of Art would be entirely closed to those whose circumstances did not permit of a life's devotion to the pursuit; but, given the requisite natural artistic feeling, it is here that photography comes to the aid of the aspirant, placing him where he might be after a few years at an art school. The expenditure of the requisite 7000 hours will not give as good draughtsmanship as that of the lens and plate. The enthusiasm of the amateur must be largely dependent upon the value and worthiness of his object, and in the case of pictorial photography this opens up a large question.

It has been said that the camera is a soulless instrument and cannot think. Well, so are the painters' brushes, paints, and canvases. All are soulless instruments and cannot think. So, for that matter, is the hand on whose trained skill he prides himself so much. That is also a soulless instrument and cannot think. It is not the implement or the medium, but the mind behind, directing and controlling that implement which makes the work of art. It is not the medium but the message that matters. The painter would perhaps allow that though any large measure of success in his medium was not possible to the man who could not devote the necessary time, still he may accomplish something of artistic value in black and white, or in etching, in which manual skill was required, and knowledge of color not essential. He has only got to go a step further to admit that, given a requisite artistic feeling, and of the culture—self-acquired or otherwise—which comes within his scope, the photographer may sometimes achieve results which, if they cannot be regarded as works of genius, have yet recorded and perpetuated for his own benefit and others, the happy moments in which nature has revealed to him some of her illusive charms.

Success does not depend entirely upon the time devoted. It is clear that, although considerable outlay of time is necessary for success, mere outlay of time goes for nothing. Study is like intellectual climbing. You may walk a long distance on the horizontal, but if you do not climb you are only on the same level. In every department of life there are men who climb, and men who do not. The majority do not. The old street fiddler has probably spent much more time with his instrument than the best pupil of the Academy of Music, but he never progresses. Some artists seem to attain their full power at, say, twenty-five, and they go on painting till, say, sixty-five, but all these forty years they have been at a standstill. It is a common idea that employment of time in special occupations makes one a great authority on the subject, and it is often forgotten that the time may have been spent in confirming bad habits. If you go on spelling badly for forty years you are not likely to become an authority on orthography. A very large proportion of the time spent by professionals in all

occupations is mere routine, and does not advance their knowledge and skill. As a matter of fact, the professional painter is often tied down to one particular kind of subject. If he has made a name as a landscape painter, he must go on painting landscapes of that particular kind, and has no opportunity for the study of figures or animals. He goes on painting the same kind of pictures, but he does not paint the style better by doing so repeatedly, and for doing this he does not require fresh skill or experience. No one would question that the ordinary Art School training of the artist would be of the greatest value to the pictorial photographer. The ability to see and draw correctly would be of constant assistance in the control and modification of the productions of his camera. On the other hand, it is possible perhaps to overestimate the importance of such training. If a complete training in this direction is unattainable, the photographer should not be content until he has at all events attained the power of making rough sketches with facility and a fair degree of accuracy. Still, it should be remembered that the training in Art Schools is generally technical rather than the development of the personal impulse. In the reviews of the works of artist which one sees from time to time in such papers as the *Studio*, it is remarkable how frequently it is pointed out that such as are self-trained often show a remarkable individuality of style, subject, and treatment, and freshness of conception not always to be found in the academically trained. The purpose of art is not merely to represent nature, but to interpret her, and the most adept draughtsman may merely represent the separate shape of objects, and utterly fail in suggesting the sentiment of the scene. He may depict the body and not the soul. Beyond the man's skill in laying on paint, and the mere copying of natural objects, there must be in any true work of art an indefinite something which may be felt more than seen—some indefinite charm which disappears when it comes to be analyzed or criticised. The question has often been discussed as to whether it is possible at all, or how far it is possible to incorporate anything of this mysterious charm which is the soul of art to the productions of the camera. If it was completely and entirely the work of a machine, no other answer would be possible but the negative; but it is well known that the photographer cannot only select scenes and improve subjects, but he may also alter effects and hold an artistic domination over his materials and so render nature, or as much as he wants of it, in his own way. In its highest form this becomes a work of the mind and imagination. Many photographers have shown that it is possible to generalize the effects of nature, and others have even gone so far in their enthusiasm as to have almost eliminated nature altogether. This, however, only serves to show that nature was pliable in their hands, if not so pliable as in the hands of the painter. There is a good deal of work in painting as well as in photography which can never by any possibility be called art. It is surprising what we have come by habit to include under that designation. For instance, the paintings which are sent to the Royal Academy each year, the rejected included, we have been taught to accept as art, and their producers artists, but it is evident even among those that figure on the walls there is a great deal which is not worthy of that name.

In any discussion as to the relative position of photography and painting, the two classes of work should be supposed to be in equal hands. The artist and pictorial photographer should be of equal experience and education in their own methods. It cannot be claimed for one moment that the bulk of so-called

photographs is fine art, but that is not the point. The question is whether photography in the most capable hands may have any such claim. The real test of any medium of artistic expression is its ability to realize the conception of the artistic mind. It is subject to the limitation of his instrument and may be nullified by failure of hand or ineffectiveness of the medium. If photography as a medium presents many difficulties, it should be remembered that the brush and etching needle have their shortcomings and limitations. Every medium has its own peculiar character and charm, and to whatever process the material is subjected, should beautify and not obliterate its character. The special quality of the photograph is difficult to define. It may have something to do with the absence of outline, and the ranging of tone with tone under the influence of light. It is a doubtful advantage to the photographer to try to deceive the observer with imitations of other means of art such as charcoal drawing, etching, or water colors, or to lose in any other way the characteristic qualities of the medium.

My remarks have so far been directed to show that the advantages of the painter over the pictorial photographer are not so overwhelming as they are generally assumed to be. On the other hand, we must frankly admit that the highest flights of art attainable by the painter may be utterly beyond the reach of the photographer. Still, if one may not enter the holy of holies, that is no reason why one should shut one's self out of the outer courts of the temple of art. Nothing is more desirable in the interest of art generally than the extension of the serious practical amateurship which has been a wonderful feature of our day. Amateurship of this kind is always attainable, even when the amateur has little time at his disposal. It is merely a question of going further or not so far. When he has little time to bestow on his favorite study it is important to learn how to make the best use of it. If he has only a few hours a week, he must stick very closely for those few hours, and in such a case it is better to keep to one method or process rather than fritter the time in experimenting with a number. It is only some twenty years since the pictorial possibilities of photography were first recognized by the few pioneers. The number of amateurs who follow this pursuit is now legion, leaving out the still more numerous class which I defined at the commencement as novices.

Comparing any recent large exhibition with the one immediately preceding, one might notice little advance, but compared with the same exhibition, say, ten years previous, the progress is very marked indeed. The same applies to the provincial shows; it has been my privilege to act as judge for many of these for years, and they have evinced in the course of years a marvellous improvement in technique, taste, and artistic feeling. One sometimes hears the remark that few new stars have appeared in the firmament. The fact is, that like those of the Milky Way, they are now so numerous as not to be so individually noticeable. But some people are not satisfied with stars, they demand comets, or phenomena, which shall make the world gasp and stare. Wherever the pursuit is taken up in a proper spirit an art education has been begun. The eyes of the worker are being opened to natural beauty of which he has hitherto been unconscious or indifferent, and he becomes more appreciative of the work of great artists, past and present. Thousands whose lives are necessarily mainly occupied with the cares of business or other occupations, find in pictorial photography that complete form of recreation which consists of a complete change of occupation. The aim may not always be very high, but it is good

as far as it goes. The effect is far-reaching, for the exhibitions promoted by photographic societies are not without beneficial influence on public taste. International exhibitions have done much to foster both pictorial and fraternal feeling among photographers of all nations and languages. Photography has been the new Esperanto, the universally understood language in which they have conveyed their thought and impressions to one another.

In the photographic, as in all the graphic arts, progress is only to be expected by steady growth, and not by leaps and bounds. Advance is certainly not necessarily implied by the tendency which has often shown itself of following, sheep-like, some particular style, the latest process, the newest craze in mounting or framing. Every man should work out his own salvation, follow his own individuality, "to his own self be true." The surest road to progress in pictorial photography is constant and reverent study of nature.

ACTIVE PREPARATION.

You do photographic work and you have photographs to sell. The trouble with the times is that the people do not seem to want as many pictures as we have the desire to supply them with. And yet it seems that there are some galleries that are quite busy, while there are many others that complain that there is little or nothing doing, all of which would indicate that there must be some decided differences either in the personalities or the local conditions. While it does make some difference as to the nature of these causes, what is of greater moment is a little discussion of what might be done to change the conditions.

In reading over a pamphlet of an expert advertising concern we found an article that discussed the matter of advertising at long range and indicated a few of the cardinal principles that underlie all effort to get business and hold it. With the big industries these principles are made the foundation of systematic study, and the campaigns are planned to fit the individual requirements through methods selected by the various courses of reasoning. Each one goes about it in a different way, and the only measure of the virtue of each method is the success that is obtained.

The funadmental necessity of some form of advertising is the fact that the public will not buy of a certain firm unless it knows that the firm carries the goods it wants. Furthermore, no matter how honest the business man may be, and no matter how excellent and reliable the goods he sells, it will not do any good unless the public is aware of it and has an opportunity to test it. Therefore the two things that every successful merchant must do is to let the public know where it can buy certain goods and also to give them a reason for buying at one place rather than another. All of this is considered ample reason for advertising, and the next thing to do is to study how to do it best and most economically.

The systematic advertising that has been proved successful and a wise investment is based upon these five divisions of effort. We may have mentioned this before, but it will stand repeating. The steps that must be considered in every advertising campaign are:

First.—Attract the attention of the public.

Second.—Arouse public interest.

Third.—Create a desire.

Fourth.—Get in touch with those who are interested.

Fifth.—Complete the deal, and make the sale.

Any advertising that is weak in any one of these divisions is weak in results. The big businesses watch every step in the advertising campaign and where they find a weak spot they strengthen it up. The adoption of trademarks and catch phrases are the means of attracting attention. The argument, short and powerful, or the illustration, made as tempting as possible, arouses the interest and creates a desire. The offer of some special inducement, or the giving of some attractive literature, or the promise of further information to those who apply get the contact between the seller and the buyer. Then good salesmanship must complete the transaction as soon as the probable buyer is interested and within reach. It is a pretty theory, and it is just as pretty a problem to work it out successfully. If you do, you make by it. If you do not even try it, or do not work it out properly, it is a loss. If you want to succeed nowadays, you must do it in some form. So select your method of doing it and take a try. Do not say that you cannot succeed in it until you have tried. We all want some business between now and Christmas and we will have to hustle to get it. Let's hustle some.—*Trade News.*

PHOTOGRAPHING DOGS.

THE photographing of dogs for illustration or other general purposes sometimes falls to the commercial photographer, and a few hints about this specialty may be useful. As far as we are concerned here, the work will be largely confined to "show" dogs on exhibition, or dogs at "kennels" or country houses.

A certain amount of familiarity with dogs, and their points, differences of breed, characteristics, etc., is helpful, if not essential, to success. Patience, quickness of observation and a genuine interest in the results are absolutely necessary. Dogs are as sensitive as children about new faces and strange voices, and they are quite as quick to analyze the spirit of the photographer. Then we will often have to contend with the owners. Speaking of these points, Mr. W. H. Mapes, an experienced worker, says truly: "Most dog owners want the picture to show the ears erect, and the animal on the alert, just as a great many people insist on having children taken full-length, standing. And this notwithstanding the fact that many dogs—pugs and spaniels especially—are so fat and lazy from overfeeding that they can hardly move, and seem threatened with heart failure every time they climb a flight of stairs. The most frantic efforts on the part of the photographer will hardly rouse such subjects from their state of torpor, or cause more than a few sleepy winks or a stupid stare. When it is my lot to get such a subject to work with, I proceed to handle him without gloves. I growl, bark, yelp, slam doors, cry like a cat and scratch parlor matches until the animal is actually tortured into some semblance of interest and activity. Other dogs—the nervous, intelligent fox terrier, for example—will hear and respond to the slightest sound, and are so quick that I have spoiled many exposures by opening the shutter too quickly and causing the flaps to rustle, and the dog to instantly change position. Fox terriers require the most expert handling. A slight scratching on the camera box or the crumpling of a piece of paper in the hand is usually sufficient to fix their

attention and enable their owner to get out of range of the instrument; and often the sight of a rubber ball will throw them into a jaunty, saucy position, which is superb in showing the characteristics of the breed; for a photograph of a dog, whatever the breed, must show that he has blood of good quality in him, must show his style, his carriage, and his good points, or else it is but little more than a failure. Setters and pointers are best posed with a kitten or pigeon to fix their attention. Their owners usually ask that they be taken at a point, but in all my experience I have never yet seen one in front of the camera take a perfect point. There is always something a little different from what it should be that impairs the quality of the picture and causes disappointment. It is quite necessary that the dog be well trained in using live objects to attract him, for otherwise he may create havoc with the backgrounds and accessories, if in the studio, in his attempt to seize the object. I once saw a Great Dane dog knock a trainer down in his attempt to seize a kitten which the trainer was holding, and which escaped only by climbing a tree. Newfoundlands and mastiffs are generally easy to handle, and bull terriers likewise, but the best dog of all to photograph is the Scotch collie."—E. J. DAVIDSON.

PHOTOGRAVURE PLATE MAKING AND PRINTING.

BY KARL ARVIDSON.

COPPER plate and steel plate printing has travelled through ages. Yet this method of printing remains the same as in the fifteenth century. It is, indeed, the only printing method where machines have been found unavailable for the higher classes of work. In spite of numberless efforts, no mechanical device has yet been found to take the place of the hand in wiping the plate. The idea of the method of printing is simple enough. Lines are incised or cut into a steel or copper plate. The plate is rolled or daubed with ink, which is thus forced into the lines. The surplus ink is wiped off, leaving the surface of the plate clean, while the ink remains in the incised lines. Pressure is applied to the back of the paper laid on the plate and the paper being withdrawn, carries the ink with it, out of the incised lines. This is intaglio printing.

A photogravure plate is an intaglio plate where the intaglio is produced by photography instead of by hand.

Photogravures are produced by two processes; one is called the building, or deposit process. In the other, the photogravure plates are produced by etching.

We must bear in mind the behavior of a steel plate in printing. It is composed of deep, fine, incised lines, out of which the ink cannot be wiped. In the photogravure plate, it is different; there are no lines, only the tones and half tones in broad masses. An intaglio print is depressed where these tones and half-tones exist. It is plain some method must be adopted to give these spaces a grain or ink-holding capacity, or else when the plate is wiped there would be nothing to prevent the ink being wiped out of these depressions. To obviate this, the printing plate must, as a primary necessity, possess a grain or ink-holding capacity. In the deposit process, bichromated gelatine is exposed to light under a negative, and a picture obtained, not in light or shade, but in relief and depression. To produce the

necessary grain, sand, or powdered glass, or some equivalent gritty substance, has been mixed with the gelatine and gives a grain to it. On this gelatine-grained picture, produced by photography, a copper electrotype is deposited or built, such electrotype having all the necessary qualities for intaglio printing. The admirable work of Goupil is done by this method. In the reproduction of works of art, it has never been surpassed, though it is fair and proper to add that a large proportion of its merit is due to the amount of exquisite handling and finishing, which is put into the plate, after the process work has been completed.

The other method of preparing photogravure plates, and by which by far the greater number is made, is by etching. Provision is first made for the necessary grain by dusting the copper plate on which the etching is to be done with powdered asphalt or resin, and heating the plate sufficiently to melt it; these grains of asphalt, of course, protecting the copper during etching which goes on round them. The copper plate, more or less covered with very fine particles of melted asphalt or resin, is then ready for the reception of the gelatine "resist," properly so called because its function is to resist, in the proper proportions, the action of the acid with which the plate is to be etched. To prepare the "resist" the services of a bichromated gelatine are again called into requisition. A sheet of bichromated gelatine is exposed to light under a positive (not a negative, or the subsequent operations would make our final picture a negative) and attached to the grained copper plate by atmospheric pressure. The parts of the bichromated gelatine which have not been acted on by light remain soluble and are dissolved away with warm water. There remains an insoluble picture of varying degrees of thickness. This resists in varying degrees, according to its thickness, the action of the acid in which the copper plate with its attached "resist" is now placed for the purpose of etching. When the expert has decided that the etching has proceeded to the right point, the action is stopped, the gelatine "resist" removed, and the plate proved. Do not forget that the necessary grain has been produced by the acid not etching where the asphalt has protected the copper, thus forming small fine grains. Any defects may now be removed and handwork added to the plate, but this must be done by a skillful engraver. It is desirable to avoid this as far as possible, in order to preserve the fidelity of the photographic reproduction. It is rarely safe to supplement the work of the artist with that of another hand.

A Word About Steel Facing.

After the plate has been proved, and approved, it is ready for printing, but the copper plate would not wear for twenty impressions if there were no means of protecting its surface. This necessary protection is effected by electric deposition on its surface of an exceedingly fine, thin coat of steel. When steeled, the plate should yield thousands of impressions. If the steel wears at all, the coating is easily dissolved off, and a new coating of steel deposited.

The color of ink in which a photogravure is printed is optional, but there is a very beautiful method of printing photogravure plates, in which the plate is inked locally with a variety of colors, in fact, painted, almost as a painter would paint his canvas, with this advantage, that the design—the groundwork—is prepared for him. When he has laid on his colors, his picture is transferred to paper. The design or groundwork remains, again ready to be painted.

It may readily be conceived that such

a process of printing is slow indeed, two or three impressions a day, only, being obtainable from a moderate sized plate. Perhaps one is hardly justified in calling it photo-mechanical printing. It is an art process, and when artistically done, the result fully justifies the labor expended.

The papers generally used for printing photogravures are plate paper, Japanese vellum, French Japan, parchment, and India. Enamel and coated papers are not suitable for photogravure printing.

The paper is prepared for printing by being moistened and allowed to stand for several hours under a light pressure, so that each sheet of paper may become evenly dampened.

Photogravure plates cannot be printed satisfactorily on dry paper.

MAKING ENLARGEMENTS.

To begin with, one must have a good sound lantern, with a condenser that will cover the plate; not necessarily an elaborate one, but one that is strongly made of seasoned wood, does not leak at the corners, and whose illuminant, be it oil, gas, or acetylene, is optically centred. A special enlarging objective is not either necessary or desirable, because any good quarter-plate lens of not more than 5½ inches will do all that is required. As the lens has no rack and pinion, it is preferable to have a rack-work frame on the lantern itself, in order to facilitate focussing. It is possible, of course, to merely rely on the sliding telescopic tubes generally fitted in the cheaper patterns; but fine adjustment with these alone is almost impossible, so that the slight extra cost of the rack-work on the lantern is well worth having.

My own lantern has merely the base fitted thus, as I use an ordinary quarter-plate lens, which happens to be a good one, though.

I don't fancy condensers vary so much in quality as they are supposed to do, but they should be fairly free from bubbles. The illuminant is a knotty problem. Those who have gas laid on can, of course, do no better than rely upon the incandescent mantle; the ordinary upright pattern is the most used. It gives an excellent light, but has the unfortunate habit of projecting the pattern of the mantle on the screen, unless a piece of ground glass is interposed between it and the lens.

It is now possible, I believe, to procure the inverted mantle fitted with cowl and tray for use in any lantern. This is a step in the right direction, for in this type the light is much more concentrated, and being smaller, there is less loss of light, a thing which is exceedingly difficult to overcome whenever ordinary gas is used.

Acetylene has its advantages in some ways. The light is very intense and of good actinic quality, but it is dangerous unless very well fitted, and then it becomes expensive.

It is quite possible, however, to rig up an acetylene installation by the aid of a bicycle lamp, using the lamp merely as a generator, and connecting a burner from the lantern to it with India rubber tubing. It is difficult to centre the light, however, but this can be overcome by a little experimenting. For small condensers, one burner should be sufficient; but for anything over 5½ inches in diameter, two, or perhaps three, would be necessary. The great point to be observed, whatever illuminant is employed, is even lighting of the screen. The circle should be quite bright all over, without any shadows or discoloration;

the latter is often caused by faulty condensers. By discoloration I mean bluish patches near the edges where the illumination falls off. Unless this is overcome it is absolutely impossible to get sharp enlargements, however good the negative may be. When the light is optically centred, there should be no difficulty in getting sharp detail, even at the extreme edges of the print. There are several other points that tend to make for this end, one is exact parallelism of the lantern and screen, and another is the angle at which the screen is set. Under normal conditions it should be at right angles to its base. There are times when it becomes necessary to depart from this latter rule, generally when the lines in an architectural negative require to be corrected, then the screen often requires to be tilted backward or forward as the case may be.

Having disposed of the apparatus, the negative itself is the next consideration. It is a great mistake to imagine that every technically good negative is suitable for enlargement.

There is a certain quality that alone will give the finest results, and that quality can approximately be described as thin and clear, with abundant detail, yet without any actual clear glass.

It is often said that there is a certain printing quality for every process, one particular quality which will give the best print.

For instance, a pyro developed negative, with its slight yellow stain, is admitted to give the best P.O.P. print, or any other print for which daylight is employed, viz., platinum, carbon, etc. But in artificial light printing I have never found the pyo negative in any way superior to the negative developed with some of the more modern developers. In fact, a number of my best enlargements have been from hydroquinone-developed negatives, most of which were clear and very thin, yet with ample detail. The only reason why I use pyro habitually nowadays is because if I am uncertain of any of my exposures I find I can obtain more uniform results, owing to the greater control which is possible with a pyro developer.

A dense negative is totally unsuitable for enlarging by artificial light, that is to say, if a pictorial result is expected. It might take half an hour for the light to penetrate the darkest portions, during which time the paper is almost sure to show signs of fog from any stray light which may emanate from the lantern, and there is sure to be a little, especially from the chimney, however well the thing is constructed. It has no effect when the exposure is only of short duration, as it has not time to act. Bromide paper is nowadays made in so many different varieties that it is often hard to make up one's mind what kind to use.

Generally speaking, a paper with a moderately rough surface will give the most pleasing result. The rapid or extra rapid is specially adapted for artificial light work, and yields the softest prints. It should always be borne in mind that the enlargement of a negative tends to increase the contrast of the picture, so that harshness has to be guarded against.

One has also a considerable amount of control over the image when enlarging, a thing some workers are apt to overlook. For instance, a landscape negative containing light clouds, which are often extremely hard to bring out by contact printing, are quite easily printed through the lantern. All that need be done is carefully to shade the lower portion of the picture when its exposure is complete, allowing the highlights and clouds to have a longer exposure. The shading must be done evenly, so as to prevent any difference between the two exposures showing. A piece of cardboard kept constantly on the move, and large enough to continually cover the

finished portion while the clouds are being printed, is the most simple way of doing this.

Now as to the exposure itself, which, after all, is the crux of the whole matter, and which is a difficult subject to write about—no rule which would be infallible can be laid down. Experience is the only reliable guide after all, and it is very soon gained with a little practice.

We have two factors which are more or less consistent at all events, namely, the bromide paper and the illuminant. The negative and the size of enlargement are variable factors. With regard, however, to the bromide paper, it must be remembered that its speed only remains constant so long as one adheres to the same speed of paper—even different varieties of paper by the same maker vary considerably in rapidity.

The size of the enlargement affects the exposure to a very great extent; for example, if a quarter-plate negative enlarged to a whole-plate required eighteen seconds, it would require half as much again if enlarged to 8 by 10, and double if enlarged to 10 by 12.

It is always advisable to make a note of the exposure and degree of enlargement, together with the brand of paper used for each negative, and to keep it as a reference for future use.

In the development of an enlargement several important things have to be observed: for example, the kind of developer to use, the amount required, the method of using it.

Amidol, metol, rodinal, ortol, hydroquinone, are all suitable in their way; but the simplest is amidol, and the most useful for all-round work. There are so many good formulas of this developer published, that it would be superfluous for me to furnish one here. Every maker nowadays includes one in his list. Nevertheless, whatever particular one is adopted, it should always be compounded at home, for amidol is useless when stale, and a fifty cent bottle of the chemical in dry powdered form will last for months. There is nothing complicated about its dispensation, and the only other ingredients necessary are a small quantity of sulphite of soda and a little potassium bromide.

It will keep in solution and remain good for four days, after which it turns pink, and loses its power as a developer.

Rodinal is very useful as a single-solution developer in the concentrated form, to which it is only necessary to add water to form a working solution.

It does not, however, produce such a rich tone as amidol, but for some subjects of a delicate nature it is admirably suited.

Whatever developer is selected, a sufficient quantity of it should be used, in order to cover the paper in the dish; otherwise it will not flow evenly over the surface, and patches caused by uneven development will result.

Six ounces of solution should be used for a 10 by 12 enlargement.

The paper, when taken from the easel or screen, should be laid carefully in the dish, and then flooded with water, or even slid into the water which has been previously placed there.

Air bubbles are often a source of annoyance, and therefore large sizes of paper should be allowed a full minute to soak before pouring on the developer.

As so many workers find it exceedingly difficult to judge when development is complete by red light, pains should be taken to see that there is plenty of it. In fact, it is an absolute necessity to have a good light to work by when developing enlargements.

There is no risk of fogging the paper if good quality ruby glass is used. The image should be developed fully, and then held up to the light, and its density judged by looking through the paper. The fixing bath has a slight tendency to darken the image, thereby increasing the contrast, so that development should not be carried too far.—G. E. C. Morris.

TRADE NOTES.

THE Cooke-Telar, just introduced by the TAYLOR-HOBSON Co., of New York, is the latest thing in lenses. As will be inferred from its name, it is a telephoto lens. It is a high-speed anastigmat of long focus, and requires only a short bellows extension. It is complete in itself, and with the same bellows extension as an ordinary lens, will give an image twice the size. The Cooke-Telar at F. 7 works nearly three times as fast as the single element of a convertible anastigmat, and is invaluable for the photographing of moving objects, outdoor portraiture, etc. The illustration in the advertisement of this lens, elsewhere in this issue, shows the difference in the size of images obtained by the Cooke-Telar and the ordinary lens from the same position and with the same bellows extension. The Cooke-Telar is wonderfully light and compact and can be fitted to almost any between-the-lens shutter. For rapidly moving objects, it must be used with a focal plane shutter. The use of the telephoto lens has been restricted, owing to the size and complicated movements of the telephoto lens of several magnifications. With these objections removed in the Cooke-Telar, telephotography will become much more popular. You will have to add a Cooke-Telar to your lens outfit sooner or later. Full particulars can be had by writing the TAYLOR-HOBSON Co., St. James Building, New York.

HAUFF'S PYROGALLIC ACID needs no further recommendation than its name. It is the professional photographer's great stand-by and is never known to fail. If there should by any chance be any professional photographer who is not acquainted with the merits of this developer, a request on your letter paper to G. Gennert, U. S. Agent, 24 East Thirteenth Street, New York, will bring you a half-ounce free sample. When writing you had better ask for a copy of *Hauff on Modern Developers*. It is a valuable handbook on developers that you should have in your working library.

THE AMERICAN PHOTOGRAPHIC TEXT-BOOK Co., 360 Adams Avenue, Scranton, are getting out a "Popular Edition" of their celebrated *Complete Self-Instructing Library of Practical Photography*, in ten handsome volumes. The first edition of this great library sold out quickly and has received the endorsement of many of our most prominent workers. Copies of their letters in praise of the Library can be had, and full particulars of a special pre-publication sale of the new edition can be had by writing the publishers. Sooner or later this Library will have to be in every studio. Take this opportunity and get a set at the special price.

ONE method of securing some of Professor Sheldon's Permanently Pleased Profitable Patrons would be to push good carbon prints for your best customers. The beauty of the prints and their permanency will win good prices all the time.

GEO. MURPHY, Inc., 57 E. Ninth Street, New York, agent for the famous autotype Carbon Tissues, has a good working manual of the carbon process that he will be glad to mail to anyone interested.

THE AGFA "BOOK OF FORMULAS," edited by George L. Barrows and published by the Berlin Aniline Works, easily ranks as one of the books "most in demand in photographic circles," and is so well ahead in the "six best sellers" class that the large first edition is almost out of print. Before it is too late, make sure of a copy by sending an Agfa label and ten cents to cover postage. It is a big fifty cents' worth.

Two new "specials" for the studio are announced by the EASTMAN KODAK Co.: The Eastman Focussing Curtain, of velvet, with brass rings, and mounted on a brass rod, which is easily attached to any camera from 8 x 10 to 14 x 17—a very much neater arrangement than the loose and ungainly focussing cloth—sells complete for $5.00. The second item is the Eastman Studio Register System—an outfit consisting of a handsome oak case for desk use and another for cards transferred, and a complete set of record cards, which register the customer's and take care of all studio accounts. Convenient, speedy, and simple. Keeps an absolute record of every transaction in the simplest, most sure, and accessible form. Selling for $5.00, it will pay for itself many times over by the time saved through keeping your records in a systematic manner.

WILSON'S PHOTOGRAPHIC MAGAZINE

A MONTHLY MAGAZINE FOR PRACTICAL PHOTOGRAPHERS

Founded in 1864 by EDWARD L. WILSON
MRS. EDWARD L. WILSON, Publisher and Proprietor
T. DIXON TENNANT, Editor

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EDITOR'S TABLE.

Landscape and Figure Composition, by Sadakichi Hartmann (Sidney Allan). Illustrated; 121 pages. Price $3.00. The Baker & Taylor Co., New York, 1910. The photographer is again indebted to Sadakichi Hartmann for another very helpful and practical book. *Landscape and Figure Composition* is a reprint of twelve articles which appeared in the *Photographic Times* during 1909. The subject is handled in the author's well-known direct and forceful manner. The illustrations, of which there are some one hundred and twenty-eight, have been carefully selected from celebrated paintings and original photographs and are well reproduced on good plate paper. The professional photographer will find the chapters on the Placing of Figures, Background Arrangements, One-Figure Composition, Two-Figure Composition, and Composition of Three or More Figures especially interesting. There are altogether too few books on the art side of photography, and we are glad to recommend this book to those photographers whose aim is to produce artistic work.

ONE of the western photographic colleges is going to spend $10,000 on an advertising campaign during the next twelve months. As we cannot imagine the astute proprietor of this college investing a dollar in advertising that was not going to be returned threefold, it is very evident that general advertising pays well. Why would it not pay the members of State Associations to devote a large sum of money to advertise photography generally throughout their States?

AN enthusiastic meeting of the photographers of Worcester, Mass., was held recently at the studio of Louis F. Bachrach, and the Professional Photographers' Society of Worcester was formed. Practically every photographer in the city joined. It is proposed to hold bi-monthly meetings. Among other things, the society aims to better the condition of photographers in Worcester in general, to promote acquaintance and a more friendly feeling among them, and to create interest in their art and a more careful study of it, which may finally lead to exhibits of work from time to time.

HOW many photographers miss a lot of business by not keeping a record of the babies born in their city, or when first photographed? Mr. Robson's idea, of which we give an illustration, could be carried out in a great many families with very little persuasion. A polite reminder would, in many cases, bring the business.

THE WOMEN'S FEDERATION of the P. A. of A. is now beginning a new year of active work. Last year's work yielded very gratifying results. We want this year to be even more successful, and the earnest support of every woman photographer, either as an active member or an associate member.

The following article will be beneficial to all who wish to become members of the Federation:

Art. 3. Membership.

The membership shall consist of Active and Associate Members. Active Members shall consist of professional women photographers, who are active members of the P. A. of A. Associate Members shall consist of all other women photographers. They shall be entitled to privileges of the Federation, except that they shall not be entitled to a vote or to become members of the Executive Board or to attend the annual meetings of the P. A. of A.

The work this year through the "Circle" will be very beneficial. The membership list is already very large, making it necessary that the exchange of prints be done at one specified time, in order to facilitate the work of Miss Belle Johnson, of Monroe City, Mo., under whose supervision this work is being done.

Sec. 7 of the By-Laws will be of interest to all members of the "Circle."

Sec. 7. Each member of the "Circle" shall promptly forward all prints received to the next member, and shall send a postal to the First Vice-President when mailing them, to notify her that the prints have been mailed. Failure to promptly forward prints and send a postal will result in a fine of fifty cents for delinquency, as the success depends upon the prompt forwarding of all pictures received.

The membership fee of the Federation is only fifty cents (50 cents), which also covers the expense of becoming a member of the "Circle" if you so choose.

To all who are not already members we extend a hearty invitation to join us in our effort to make this a banner year.

M. D. GOODLANDER,
Secretary, Muncie, Ind.

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Vol. XLVII ✣ ✣ ✣ ✣ No. 647

NOVEMBER, 1910

WILSON'S PHOTOGRAPHIC MAGAZINE

DEVOTED TO PHOTOGRAPHY MONTHLY: ILLUSTRATED

$3.00 A YEAR
SINGLE COPY, 25 CENTS

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OUR PICTURES:

Frontispiece and Five Engraved Supplements from Photographs by Meredith Janvier, Baltimore, Md.

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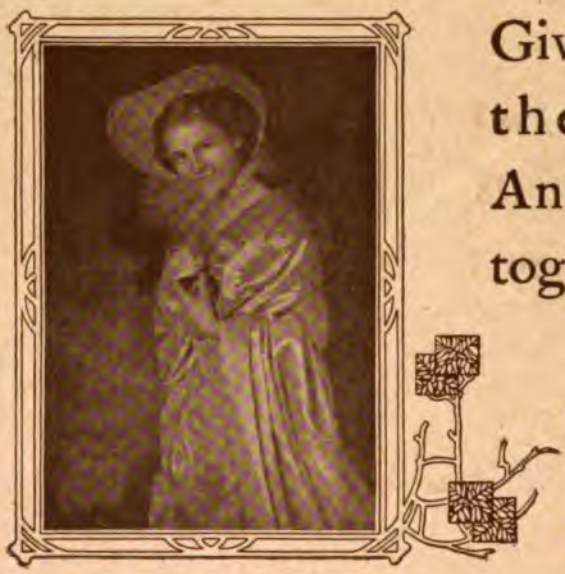

Given Away with the American Annual of Photography for 1911

It is a Photo-electric portrait made with Steffens Electric Light Cabinet and printed on

Professional Cyko Buff

Negative and print were made by E. E. Doty before several hundred photographers at the Annual National Convention of the Photographers' Association of America. In this demonstration of the celebrated Steffens methods, the master photographer, Commodore Steffens *insisted* upon the use of *Cyko Paper* to insure perfect results. This confidence in the reliability and artistic qualities of Cyko was well rewarded. Examine the print closely. This print marks a new era in portrait photography.

You cannot afford to be less careful in your choice of paper than a master of the art. It is a known fact that Cyko will produce better prints than other papers from your negative.

Ansco Company Binghamton, N. Y.

Dr. Jacobi, New York

By Meredith Janvier, Baltimore, Md.

WILSON'S

PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVII NOVEMBER, 1910 No. 647

ON ADVERTISING.

We will take it for granted that advertising, in one form or another, is a necessity in the building up of photographic business.

Whether it is a "barker," barking in front of a Coney Island tintype studio, or a far-fetched story in *The Philistine*, every studio seeking business must advertise.

It becomes a question of how to advertise; what to say and what not to say. So much depends on the impression you create in the minds of the people who see your advertisement.

You had better say too little than too much. What is left unsaid cannot come back at you.

Recently a big dry-goods firm came to New York and opened a huge department store. For some weeks in advance they took whole-page advertising space in the newspapers, at enormous expense, to tell the New York people what they might expect of the new store. In our estimation we think they said too much. After reading the glowing and impressive descriptions of the building, the merchandise, the courtesy, the wonderful values, etc., we were almost led to expect to find quality, courtesy, distinctiveness, and other abstractions sticking out in concrete form as prominent and as distinct as door-knobs. True, it was a great new store with a fine display of goods, but somehow you didn't seem to find things so wonderfully different from any other good store, and came away with the feeling that the performance fell below the promise.

If you write your own advertisements be careful not to make statements that you cannot back up, or if you employ someone else to do your advertising, see that they do not commit you to more than you can perform.

Beware of the "literary" advertisement—a beautiful string of adjectives is less convincing than a plain statement.

In your newspaper advertising a few simple statements set in good plain type will, in the long run, carry much more weight than extravagant claims set in fancy type with frills.

Let your circular matter be the best you can get. Good paper, good type, and careful composition. As an artist you appeal to the artistic side of your clients. Carry it out in your advertising as well as your picture-making.

Do not advertise "how cheap," but "how good." The demand for good portraiture can be increased a hundredfold just as soon as you can make portraits that are portraits.

THE ASSOCIATED PHOTOGRAPHERS OF WEST VIRGINIA.

Now West Virginia falls into line and the photographers have formed an association of their own. At an enthusiastic meeting at Parkersburg, with President Proctor of the National Association in the chair, a well-drawn constitution was adopted and officers elected.

One of the objects of the Associated Photographers is "to affiliate and cooperate with the Photographers' Association of America in advancing and protecting the photographic profession." The sooner all State associations insert a similar clause into their constitutions the sooner will the National Association arrive at its greatest usefulness.

The method of providing an advisory council is a good one and could be followed to advantage by other associations. "The council will consist of three members who are to be the three presidents of the three immediately preceeding years." By this means the men who have worked their way through the vice-presidency and presidency are not lost to the society as soon as they have ended their presidential term.

Mr. A. T. Proctor, of Huntington, was prevailed upon to be the first president of the Association. J. E. Giffen, of Wheeling, was elected vice-president; F. Cochrane, of Charleston, secretary, and W. R. Loar, Grafton, treasurer. Grafton was decided upon as the meeting place of the first convention, which will be held next year. President-elect Proctor promises a first class convention, and judging by his remarkable success at Milwaukee it is quite likely to be as promised. We wish the Associated Photographers of West Virginia a long and prosperous career.

COMMERCIAL PHOTOGRAPHY.

In the commercial department of the graphic arts, photography has assumed a position of importance because of the generally conceded "veracity" of its work. It is true that the final retouched photograph ofttimes would hesitate in claiming relationship to the original photograph, nevertheless, it is the natural, truthful foundation which the photograph lays for the final retouched photograph which makes it appeal to those who view it and who consider it necessarily "a fact." Let us, therefore, see how we can improve these facts so as to assist further reproductive processes.

Machinery must be carefully prepared for photographing. The machine should be smooth and free from spots of any kind, which, if not removed or covered, will show through the paint. The paint should be of a brownish black which gives rich blacks and full detail in the negative. If there are any very glossy parts, good results may be obtained by painting them with an aluminum enamel which will kill the gloss and still retain the necessary brilliancy.

The next step is proper lighting, which should be of even, soft quality. Never photograph against the light, as good results can not be had if the light shines in the lens. If the light is uneven, it should be corrected by means of reflectors, diffusers, or anything that will make light uniform. It is possible to reduce the cost of retouching a photograph by at least 50 per cent. if proper attention is paid to this all-important factor of lighting and painting. This frequently means a saving of anything

between twenty-five to seventy-five dollars, and one will always find with the greatly retouched article an absence of naturalness.

The correct view is another very important part in photographing machinery. This is best learned by experience, but the inexperienced photographer can be taught much about the machine from the expert mechanic, and in this way being guided with the familiarity of the mechanic with the important features of the machine to be photographed, will be sure to select a good view. The best view is one that brings out the salient points. For this reason these parts must stand out prominently in the photograph. Very large machines should be taken at such an angle that will make them look massive and strong. It is a good plan to place a man in all large views of machines at the end nearest the camera but in the background, so that he will not cover any part of the machine and yet serve the purpose of showing the machine by contrast to be of very large proportions.

In cases where the machines are of great length, it is sometimes customary to omit parts of them in the photograph. This applies in particular to planers with long beds. If the complete machine is shown, the smaller parts appear so minute that it is impossible to reproduce them with good results and the photograph for general use does not do justice to the machine, making it look much smaller than it really is. Part of the bed can be cut off, thus enabling the photographer to place the camera nearer the machine and bring out strongly the important parts of the planer.

Machines that are built-up off the floor should have a platform built around them as this adds greatly to the appearance of the tool. If this is not done the foreground looks bare, as though something were lacking.

A plain, white background should be used always, because the machine being black it stands out in the negative and makes the opaquing easier. The background should be back far enough from the machine so as not to throw a reflected light upon any part of its mechanism.

The exposure should be as exact as possible, erring on the side of overexposure, but being careful not to underexpose it as this latter will make a useless negative. There is only one correct exposure, and a little this side or the other will not give good results. If the exposure is absolutely correct, any good developer in the hands of a photographer who understands how to use it, will produce a negative of fine quality. It is impossible to write a table of exposures for machinery photography, but the following example may be of some value:

Suppose the machine has been prepared according to the foregoing advice, the sun shining, a June day, and the light on the machine of a *soft quality* and uniform—no sun rays striking the machine. With a Goerz anastigmat lens, No. 7, stopped to a ¼-inch opening, and an 8 by 10-inch non-halation plate, an exposure of two minutes would make a negative of good quality. I prefer an anastigmat lens of long focus. The space one has to work in, of course, governs the focus of the lens. A long-focus lens gives a better and truer perspective, while a short-focus lens will give distortion, especially in making negatives of large machines.

The size of the plate should never be less than 8 by 10 inches, and this size is too small for machines of extraordinary proportions. If the reproduction is to be 7 inches long, the machine should be taken on 10 by 12 inch-plate, and the object as large on the plate as possible without showing any distortion.

Opaquing the negative is one of the most difficult operations in commercial photography, and if not absolutely

correct ruins a first-class negative by showing ragged edges in the print. It is a mistake to try and opaque speedily when first learning to opaque. It is better to work slowly and after a time speed will gradually develop. If the print is to be reproduced, it should be on a gelatine paper, toned in a plain gold bath. A rich brown color is best, as this gives rich blacks in the reproduction and brings out all of the detail. There should be no hardener used in the fixing bath, as this interferes with the colors of the retoucher. It is unnecessary to burnish prints. Simply lay out on blotters to dry, and, when almost dry, draw them over the smooth edge of the table to keep them flat, and deliver unmounted to the engraver. Prints for general use should be made on developing paper which gives a tone nearest the color of the machine and, besides, costs less than any other paper. By using a developing paper there is no delay and the results are superior to any other kind.

Prints should be mounted on bleached muslin, leaving a hinge on the left-hand side for binding. Photos mounted in this manner may readily be made into catalog form by punching holes and placing in suitable covers.

Last but not least, cleanliness is the keynote to success in portraiture, and applies just as strongly to commercial photography.—A. P. TILLMANN.

BRIGHT PRINTS FROM THIN NEGATIVES.

IN a special contribution to *Photography and Focus*, Mr. R. Wharton describes a method of securing bright or contrasty prints from thin, flat negatives.

There is a very easy way of influencing the contrast still more than by altering the strength of the light, and that is by altering its character. If instead of printing in white light—that is to say, in ordinary daylight in the usual way—we place a piece of green glass over the printing frame, we shall find at once that a great increase in the contrast of the print is brought about. Printing will take a good deal longer, but the print finally obtained will be much brighter.

Various explanations of this have been put forward. One is that owing to there being at least two different sensitive salts of silver in the paper—silver chloride and silver citrate (or some kindred salt)—the green light acts more on the citrate than on the chloride, and the citrate tends to give contrast. Whether that is so or not is doubtful; but the fact remains that printing in green light does tend to increase the contrast, and that it is a very easy matter for the amateur photographer to take advantage of it in printing on P.O.P. from thin negatives.

The exact tint of the glass does not seem to be of any very great importance, and the green usually kept in stock by glaziers answers very well. If there is any choice, it is well to get the lighter, as it will not hold back the printing so much. If green glass is not accessible, bright green tissue paper will serve, and may either be pinned across the front of the frame or placed between a couple of sheets and laid upon it. Some photographic dealers supply green glass for the purpose, or at least they used to do so.

GROUPS.

THE photographing of groups of persons might almost be called a distinct branch of business, and there are not a few photographers who almost entirely confine themselves to this class of work. Schools, colleges, picnics, weddings, military meetings, all require their photographer, and in the aggregate they accept an immense output of pictures. Within the last few years this class of work has, I am inclined to think, both advanced and retrograded. For we see some examples which are about as bad as well can be, and more really good work is turned out than was the case a few years ago. Perhaps this double travelling is due to a dividing line which has crept in in the shape of the amateur. Nowadays there are few moderately sized parties of people of moderate means in which at least one person with a camera is not included, and this has tended to do away with that class of photographer that haunted popular resorts and took groups on "spec."

There is a good deal of the element of chance in group work, at least to the beginner, for he can seldom get a straight order at first. The goods must be seen before they are sold. If the group is a success, everybody may want one; if not, scarcely any may be sold. But taking one with another, a fair proportion of sales, at a reasonable price, should be made. This is in the more risky ventures; where the various classes of a school, or the members of a church or local club are photographed, a successful return is almost assured.

The great question in taking a group out-of-doors is to select a good light—direct front light is far too often used, with the result that the pictures are much too flat and poor; a side light should always be chosen, the space to be occupied by the group apportioned and focussed before the subjects are grouped.

The value of a diffused light is very great, the harshness of direct sun being heartbreaking. The shade of a tree, if properly chosen, may be a great help, or if the shadow of a building can be utilized so much the better. The grouping can be performed with the aid of one or two persons placed at the edges and centre of the space selected, and care should be taken in selecting just the necessary diaphragm; too large a stop will, of course, give the edges out of focus, and at the same time should too small a one be used, it will unnecessarily lengthen the exposure, which is an important question when the steadiness of some thirty or forty persons has to be considered. When this part of the process has been completed, the figures should be grouped as rapidly and carefully as possible, due note being taken as to the colors of costumes, light and dark portions being so arranged as to balance properly and make a harmonious whole.

This grouping will be easy with some little practice, and the exact capabilities of the lens will be known. Before exposure, look carefully at the group to see that none of the faces are hidden, and at once make the exposure. Now, that every tenth man owns a camera, and every fifth one knows all about it, the photographer must be careful to rule the situation. His should be the grouping and general arrangement, and he must not show any signs of lack of confidence.

What size should groups be? From a purely business standpoint, I think that as much as possible should be given for the money. School children, whose pennies are limited, have to be content with a picture 5 x 7, or sometimes smaller—sufficiently crowded if there are thirty or forty children in the group. A picture 8 x 10 should sell very much better than one 5 x 7, but it costs at least

six cents more to produce, including mount. It is for every photographer to decide for himself whether there is more money in the larger one, if he charges his customers just enough extra to comfortably cover the difference in cost. For people who can afford to pay a reasonable price, 10 x 12 is a good size, but for most work anything above this is too big.

Groups are very seldom framed; they are usually stood on the mantel, where they can be conveniently picked up and examined; for a group is always critically looked at. First, Tommy or James has to be located, and declared "just like," then other friends have to be pointed out and identified, and all this can only be done when held in the hand. The group should, therefore, be mounted on a stout card, and one with a liberal margin should be chosen—it looks more for the money. And there is one important little thing: the average photograph will curl its mount, if we will let it, and in spite of being propped behind the clock or some ornament, it has a strong inclination to slide about in a most perverse and flop-headed fashion. Let the mount be flat when the work is delivered; it is one of those little things which will be appreciated.

THE MAKING OF AN ANASTIGMAT.

THE first step, before a wheel can turn or a glass be ground, is the calculation of the curves of the glasses, the determination of the number to be employed, their diameters and thicknesses, their density, refractive and dispersive powers, according to exact mathematical and optical laws. The lens calculated and the calculations proved, the next step is the selection of glass.

Glass is of many kinds, of many properties. Before the day of Jena glass, and of Abbe, who needed new ones, and of Schott, who carried out the ideas of Fraunhofer of spectrometric fame and designed new methods, and of the Schott and Genossen Works at Jena (now a part of the Zeiss Works and, in consequence, a part of the Triple Alliance, of which Bausch and Lomb and G. N. Sægmuller form the American sides), glass was of two kinds, crown and flint. Everyday English makes of glass a specific term. As a matter of fact it is no more so than wood, or metal, or cloth. Just as there are many different varieties of wood, kinds of metals and weaves of cloth, so now there are many different kinds of glass. Long before Schott made glasses of selected density, absorptive, refractive, and dispersive powers, Abbe had calculated lenses and optical instruments which would be possible, had he only the glasses, much as astronomers calculated the existence and the position of Neptune before they saw him.

So that, in bracketing Zeiss and Abbe and Rudolph together as the fathers of the modern anastigmat, it is but just to add Schott to the list—the one man in Europe with sufficient idealism added to his knowledge to bid him take up the apparently unprofitable study of producing new and untried optical glass

The stock determined, the glass must be cut to the rough dimensions of a lens. There are various ways of doing this, and in cheaper lenses the glass is heated and pressed to rough shape. But for fine lenses—for Tessars—no such chances are taken with internal strains, striæ, or streaks. The glass is *sawed* from the block, a process requiring special machinery, diamond dust, and a great deal of time.

These are the preliminaries. From here the glass actually begins to be an element in a lens. Many and various are the ordeals it has to undergo before it finally reaches the stage when it may properly be called a lens. Wood can be sawed, cloth can be cut, metal can be planed and turned, but glass can only be ground or chipped. Even the process called "sawing" is but a variety of grinding. For glass is hard, very hard—so hard, indeed, that the abrasives which will attack it are few in number, and not all of these are suitable. And because a glass, to be shaped, must be ground, and because grinding is a slow and tedious process, a lens commences to be expensive, compared with the price of raw glass, with its first grinding.

This first grinding is but a rough approximation of the final diameter and thickness of the lens, making the square or irregularly sawed piece circular, in other words. Then come a series of grindings, called, in optical factory parlance, "rough grinding, second grinding, and fine grinding."

And how is a lens ground? Here, in itself, is an art worth seeing. Lenses are ground in or on "shells," metal cups and metal half-spheres which fit into them. All photographic lenses, save a special lens designed on purpose to distort the images it forms, are, so far as their surfaces are concerned, sections of spheres, and all such photographic lens grinding-shells are, in consequence, spherical in shape. Shells come always in pairs, whether the lens is to be ground convex in the cup, or concave, by being ground on the ball-half of the pair of shells. It is only by having two parts to one set of shells and grinding them together that they can be made to remain true.

The roughly-shaped circular piece of glass comes to the rough grinder, with the pair of shells he is to use. Both parts of the shell have handles or spindles projecting from them which fit into a rapidly whirling spindle on the grinder's bench. The piece of glass is held in the revolving cup by means of a pressure handle which can be so manipulated that the angle at which the glass surface presses against the cup surfaces constantly changes. A cutting abrasive is put in the shell, together with water, and the lens begins to grind. The shell revolves, the glass revolves by contact, the workman constantly changes the position of the glass with reference to any one spot in the shell, and the abrasive brought in rubbing contact with two surfaces at once, and in every conceivable direction, wears away the glass until it conforms to the shape of the interior of the shell.

The curve of the lens then—the radius of the sphere of which the curve is a part—is determined by the shape of the shell. The shape of the shell depends on the man who makes it and the lathe on which it is turned, so that it is seen that the final curve of the surface of the lens, coming in the first place from the pencil of the computing optician, must go through the hands of the pattern maker, the moulder, the caster, the iron-worker and lens grinder before, even in the rough, it gets to the glass itself. Something of the accuracy attained in all of these processes may be realized when it is understood that metal gauges, worked out to the thousandth part of an inch, are constantly used to test the correctness of the curve of the shell, even in rough grinding, and that the allowable error in the trueness of the glass itself, when finished, is too small for mechanical measurement.

After rough grinding one side the workman takes the ball-shaped half of his pair of shells, and grinds it and the hollow shell together, in the same manner as he has just ground the glass. This regrinds the pair, keeping them to their true spherical shape. Since they move in every direction, the one within

the other, they must grind a true sphere. After this corrective grinding, the other side of the lens is rough ground.

Before second grinding a lens, it is "blocked"—mounted with pitch on the end of a mandrel for ease in handling—and to provide something with which to apply pressure in the shells without marring the surface of the glass.

With every new pair of shells and every new workman, the fineness of the abrasive becomes greater. A lens, rough ground, is full of pits and holes. A lens, second ground, has still surface marks, but they are much finer. Fine ground, a lens has a perfectly smooth velvety surface, with no marks or pits visible, yet it is not a polished surface. Polishing is but a continuation of grinding, but with rouge so fine that it takes a microscope to show the grains. This rouge is obtained by stirring the polishing material in water and allowing it to settle for a definite time, when the remaining water is poured off, and retained, to have the same process re-repeated, until it is full of a sediment so light and fine that it will not settle in a specified time. The water is evaporated and the sediment becomes polishing powder. Such powder, of course, is infinitely finer than the finest grain which can be separated by a mesh, or screen, from larger particles.

A lens is first rough ground on both sides, but after rough grinding it is second ground, fine ground, and polished on one side before the other side is touched. And when the final polishing of the first side is completed, there occurs one of the most vital operations in lens making. This is the testing of the surface for trueness of curvature and fineness of polish.

This test, one of the most delicate, simple, and accurate known in optics, is made with what are known as "test glasses." "Test glasses" are blocks of glass, one side of which has been ground and polished to an exact curvature in the most approved manner known. For every lens-surface employed in a photographic lens, there must first be made a corresponding test glass, to which the lens must accurately conform. To determine whether it conforms or not, the lens is carefully laid in the corresponding test glass and the two surfaces thus placed in contact with each other are closely observed. As the two surfaces may be alike, or may differ from each other, even ever so little, a remarkable phenomena of color will result.

The principles of this phenomena are the same as those involved in the rainbow-like hues of the familiar soap bubble. In blowing soap bubbles, an extremely thin film of transparent soap suds is produced and the light in striking the outside and inside of this extremely attenuated film is so affected that the beautiful and ever-changing colors, the delight of youth, result. The color produced by a given film varies with its thickness; a film of one thickness will produce a color quite different from one of very slightly different thickness, and the soap bubble shows different colors, red, green, blue, and so on, because it is thicker in one spot than in another. These differences in thickness need be only a few millionths of an inch to be at once perceptible.

In using the test glass, in place of the thin film of soap-suds, is a film of air of great attenuation between the perfect test glass surface and the lens-surface to be tested. The slightest inequalities of the lens-surface, whether due to false shaping or to poor polishing, will demonstrate their existence by color. In case both test-glass and lens-surface accurately conform to each other, the thin layer of air separating them will be of uniform thickness throughout, and the whole surface will be aglow with one, and only one, color, the particular tint of which will depend on the pressure

exerted in holding the two surfaces in contact. If, on the contrary, the two surfaces do not exactly conform, the air-film will vary in thickness from point to point and several colors will show at the same time, thus demonstrating the irregularities of the surface.

This is the most delicate test known for establishing the absolute identity of two surfaces and, when carried out with care and precision, is infallible.

The thickness through the centre of the lens is of the utmost importance in both the calculations of the optician and the performance of the finished lens. It is measured by a delicate and precise measuring engine, of tested and proved accuracy. Section by section the rough disk is ground away, step by step the thickness is gauged and checked, until just enough remains to allow for the subsequent operations. This thickness cutting and measuring, is an operation which requires infinite care, since any failure of man or machine will mean ultimate failure of the lens to pass its tests, and the loss of all the work which has been put upon it.

The polishing of the second surface effected, it also is tested with the test glasses, and made perfect if it lacks in any way. The lens is then unblocked, cleaned of the pitch which held it, and is carefully inspected for striæ, streaked places and strains, the presence of none of which can be determined until after the glass is polished on both sides. Small air bubbles, which cannot be eliminated from many kinds of Jena glass, do absolutely no harm to a lens; they do not affect the corrections of a lens, and reduce its light passing capacity by an amount so small it cannot be measured. When a defective lens is found, as happens even with the cleanest glass, it is discarded at once. The labor spent upon it is lost, and, of course, those lenses which pass the tests must shoulder their proportion of the cost of the lost operations.

Next comes the centring of each lens —grinding or cutting off its edges, so that it has the proper diameter, and with *the optical centre of the lens and its mechanical centre exactly coincident.*

The importance of this operation can hardly be underestimated. Every photographer of experience is familiar with the peculiar effects caused by a lens being off centre and the havoc this condition plays with fine corrections. The lens is mounted upon a revolving mandrel, the diameter of the end of which is to be the diameter of the finished glass. The mounting is done with a cement which softens under heat.

The workman observes the polished surface of the revolving lens and sees upon it a picture of the nearest source of light—a window or a flame. This pictures moves, showing as a blur as long as the lens is off centre. As the uncentred lens changes the angle of its surface with the observer—a surface which is acting at the time as a mirror—the position of the reflection changes and the little picture dances.

The workman softens the cement on the revolving mandrel by delicate applications of a Bunsen flame, and with a wooden tool pushes on the edge of the revolving lens. By nicely adjusting the force applied and the amount of the heat, he gradually gets the lens in that position in which it revolves about its own optical centre. When this condition is obtained, the reflected picture is motionless and stationary. The edges of the lens projecting beyond the metal mandrel are then cut off with a diamond cutter and the optical and mechanical centres of the lens coincide.

Then more inspection; for the lens which was perfect, after the previous looking over, may have been injured or marred in centring. And now this glass, if it be part of a cemented system,

is brought face to face for the first time with the other glass or glasses it is to wed (for lenses are polygamous at times) and the ceremony takes place. A deft-handed girl first carefully cleans the glasses until they *are* clean—*optically* clean, not just apparently so. A tiny drop of the finest distilled balsam cement, absolutely colorless, is warmed and put upon the surface of the previously warmed glass, the other warmed glass dropped upon it, and, with a rubber-tipped tool, one is revolved upon the other until all the excess of cement works out at the edges, and any and all air bubbles which may have been in the cement are eliminated. Both lenses, or three or four, if the cemented system has so many (plastigmat has four), it will be remembered, have their optical and mechanical centres exactly coincident. As the mechanical centre is equidistant from all points of the circumference, when all the glasses have their circumferences in line all their optical centres must be in line.

After allowing time for the thin layer of cement to set, the lenses are mounted in rough mounts for testing purposes. Here the various systems are assembled, making one complete lens, and tested as such in special cameras in the big testing room. This is but a preliminary testing and if it shows faults which can be remedied, such readjustment of mounts, distances, etc., as may be necessary are made. Passing this preliminary test, the lens is taken apart, the mounts finished, polished and lacquered, the edges of the glasses are blackened, and the entire lens is reassembled for another testing.

The making of mounts is an art in itself, which, unhappily, lends itself but poorly to description. It is nothing more nor less than absolutely accurate and exact brass work. The tube and all the cells must be accurately in line, else for what good the care in obtaining coincidence of optical and mechanical centre? The distances between the separated elements must be exact to a hair, or to what end the careful calculations of the scientist? The mount must be light, or the photographer will none of it—it must be strong, to resist careless handling, and it must be firm and able to stand use without getting out of adjustment. In its centre is the iris diaphragm.

It is both wonderful and discouraging to any one who has ever fretted and stewed over an iris which he has taken apart and attempted to reassemble to see the nonchalant dexterity with which the workman slips the refractory and delicate leaves into place and with three pokes of a probe and one twist of a screw driver has a complete iris in the lens barrel!

The finished lens goes again to the test room. Here it falls into the hands of optical iconoclasts—men whose one end and aim in life is to find fault with what the rest of the factory has been weeks in doing, with all the care and skill years of experience, unlimited facilities and the highest technical skill can accomplish. The completed lens is sized, screwed home in the front board of a huge testing camera and, with a "history chart" beside him, the tester commences. For flatness of field, for definition, for astigmatism, for coma, for spherical aberration, for chromatic aberration, for distortion, the lens is tested. First on one camera, with a horribly accurate and difficult chart in front of it, which the lens must render with accurate fidelity over a certain area of the ground glass, at a certain distance—then in another camera with a collimator giving parallel rays, to test for focal length and back focus—examined for color, for striæ, for strains, for maladjustment of centring, for the proper distance of lens from lens, for good or poor cementing—everything the lens can be made to tell

about itself by the most exact and painstaking tests it is made to reveal, and these self-revelations are recorded on the chart. If the lens passes the inspection, the chart is filed. If it fails to pass—and spite of all but superhuman care and attention in making some do fail to pass—it is thrown out, never to be used or sold, its glasses destroyed, its brief life ended.

And all this effort—this ceaseless care, unending inspection and microscopic testing, added to the raw price of the material, the overhead charges of the factory plus a small profit, are what you get for the price which you pay for your lens.

It takes days and weeks to make an Anastigmat, months and years to plan and bring out a new type. It takes a master knowledge to compute the lens, a master business organization to make its manufacture possible at the prices which such lenses bring today, and masters of master workmen to see that every operation is carried out with that scrupulous fidelity to the original plans—that mathematical scientific exactitude which provides you, an amateur or a professional photographer, with a tool the perfections of which only those can fully appreciate who have seen it made. —C. H. CLAUDY in *Prism.*

GREEN TONES ON BROMIDE PRINTS.*

THE best prints are those from a vigorous negative and they should be of full depth, as the process tends to reduce them. Glossy surface paper gives a greater depth of image than the matt papers.

The following stock solutions are required. All keep well except solution C which will only last a month or two.

A.	Lead acetate cryst.	10 drams,
	Iron perchloride solution, 45 deg. Beaumé	190 mms.
	Glacial acetic acid	1 oz.
	Water to make	10 ozs.
B.	Lead acetate cryst.	1 oz.
	Glacial acetic acid	1 oz.
	Water to make	10 ozs.
C.	Potassium ferricyanide	1 oz.
	Water to make	10 ozs.
D.	Iron perchloride solution, 45 deg.	10 mms.
	Glacial acetic acid	50 mms.
	Water to make	10 ozs.

In preparing A the lead acetate should be dissolved in about 5 ounces of water, and the iron and acetic acid then added with constant stirring. Make up to the 10 ounces, and after standing for a day or two in a cool place filter to remove the lead chloride which has been deposited in crystals.

All prints should be thoroughly fixed, washed, and dried before toning.

GREEN-BLUE TONES.—Place print for two or three minutes in a bath containing 1 ounce of acetic acid in 8 ounces of water until it becomes limp, then place for six minutes in following bath, which will serve for about half-a-dozen quarter-plate prints in succession.

Solution A	½ oz.
Solution C	½ oz.
Water to make	5 ozs.

This bath must be kept rocking, and in it the print will turn blue. It is then washed for fifteen minutes in clean water, then placed for two or three minutes in the acetic acid bath, again washed, once more treated with the acid and again well washed. It

*A paper read before the French Photographic Society by M. Maqueene.

is then put through two baths of citric acid, containing 2½ grains of the acid to the ounce, and given a final wash of one hour. All this is necessary to remove the salts of lead and ferricyanide and to secure pure whites which will not afterwards become yellow. The surface of the print should be wiped with clean cotton, and the use of very hard water should be avoided.

The well-washed print is now placed in a bath of potassium chromate (not bichromate) containing ¼ to ½ a grain to the ounce; this changes the tone to green-blue. The print is then washed, passed through the citric acid bath and again washed, these washings being very brief.

BRIGHT GREEN TONES.—The prints are treated exactly as before described, with the exception that the first toning bath is modified as follows:

Solution A	200 mms.
Solution B	50 mms.
Solution C	½ ozs.
Water to make	5 ozs.

By varying the proportions of A and B the color can be varied, the green becoming more yellow as more of B is used relatively to A. If, however, a yellow green is aimed at stronger prints are required in the first instance.

PURE GREEN TONE.—Treat as before in the acetic acid bath and then put for a minute-and-a-half into

Solution B	¼ oz.
Solution C	¼ oz.
Water to make	5 ozs.

Then transfer without washing to the toning bath used for blue-green tones and keep in for six minutes. Wash well, then immerse in solution B which gives a strong blue toning. Afterward continue as before, with the acetic and citric acid baths and washing, and the final treatment with chromate. The green tone thus obtained is the same in all parts of the print, shadows and high lights, and the precise color can be modified by varying the time in the first lead bath. If the print surface loses its brilliancy it can be glazed in the usual way, either by squeegeeing on glass or by the use of encaustic paste or some other lustre-giving preparation.

ADVANCEMENT.

THERE appears to be a general depression in business still hanging over the country, and this affects the photographic profession as it does every other line of trade, especially those that deal in luxuries. Possibly it is the high cost of living, and it may be other things. As one sage of the country grocery store stated: "The high cost of living is caused by the high prices of things we now think we have to have, but which we used to do without." There may be a good deal of truth in this; but as long as there will be marriages, births, and deaths, photography will be a necessity.

A demonstrator going the rounds asked all the photographers what was the reason for the depressed condition of things. Some said it was the desire of the public to be satisfied with postals, which gave no profit to the photographer; others said it was the tendency of the people to save their money and not spend it for photographs, and still others said the penny postal craze and the simplification of photography had ruined the business.

Now, it is a fact that photographers who have got away from the postals have no real cause for complaint; if they pay close attention to their business and try to advance, they are getting as good prices as they ever did. It seems the profession has come to "the parting of the ways"—one is the making of artistic portraits by photography, in which there is good profit and not so much competition, and the other simply manufacturing photographs with an eye to the lowest selling price and cost—the simplest and easiest way. It is the line of the least resistance, as has been pointed out many times by the *Trade News*. There will always be some business in such photography, as a cheap price will always attract; but the public is slowly and surely getting dissatisfied with the investment in photography merely because it is cheap. It is that personal pride which everyone has, and in which personality the photographic portrait partakes—it stands for what the original thinks of himself—and we believe that the ability to deliver the artistic result will be recognized by the demand for more profitable work, and it will be more certain than many photographers appreciate.

Take the farmer, for instance. Up to a few years ago the farmer felt that every man's hand was against him, and that his products could only bring the price that people would make him accept, and he had that idea ingrained in him to always buy the cheapest thing. Now, with the high prices of farm produce, he has an abundance of money, but not the disposition to spend it.

This ability to buy good goods, including photographs, is more universal than is generally suspected. There are, possibly, farmers who are so shiftless or such poor managers that they would have no money if their products brought twice as much as they now do; but it is a fact that many a farmer and his family come to town looking as though the whole family did not have one dollar to rub against another, when in fact he has money out at interest or in the bank waiting to be invested. The farmer has the money but not the disposition to buy, and the man in the town or city has the disposition but not the money to spend. —*Trade News*.

PHOTOGRAPHIC PRINTS ON DRAWING PAPER.

THE excellent printing papers all ready for use which are now on the market have made processes for the home sensitizing of paper almost obsolete. Still there must be a good many amateurs who would like to try their hands at such a method, were they in possession of reliable working instructions.

The writer has made a great many prints on the lines laid down below, so that he can guarantee the complete practicability of the process. More than that, it will be found to give prints of a peculiar charm, quite distinct in character from those obtained on commercial papers. They are more like pencil drawings, being of a good black color, and quite without any suggestion of a coating on the paper. The picture just seems to rest on the natural surface of the drawing paper that is used.

The paper which has given the best results is hot-pressed "Whatman," which is supplied by any artists' colorman. The paper loses much of its smoothness in the process.

The first stage is the "salting" of the paper, which may be done throughout in any light and at any time, as salted

paper keeps quite indefinitely. A couple of teaspoonfuls of arrowroot should be stirred up with a little cold water to make a very thick paste free from lumps, and then boiling water (it must be actually boiling) should be added with constant stirring until the mass thickens, when the addition of water shou d be stopped at once. The mixture, as soon as it is cold enough to handle, may be strained through a cambric handkerchief, with a little squeezing. A solution of a quarter of an ounce of common salt in ten ounces of water is then made up, and equal parts of this and of the arrowroot mixture are taken for coating the paper.

A piece of flannel should be washed quite clean in plain water, and then folded into a strip about three inches wide, consisting of four folds of the flannel. A clean piece of quarter-plate glass has this strip folded around the end of it and secured with an elastic band. This forms the brush for coating. The paper may be in pieces eight by ten inches or larger, and the back of each should be scribbled over with a pencil, as when wet it is hard to tell the back from the front.

A sheet of paper is put face upward on a flat surface, a little pool of the arrowroot and salt mixture (which must be quite cold) is poured into the centre and quickly spread evenly all over with the "brush." This should be moved in two directions at right angles to each other, the surplus solution being swept off at two of the edges. Not more than twenty seconds should be taken to do this, and the paper may then be pinned up to dry in a warm room. The quicker it dries the better.

After the lapse of twenty-four hours, or any longer time, a second coating should be given in exactly the same way as the first.

A little while before it is to be printed, say the day before, if it is to be at its best, the paper must be sensitized. For this purpose a plain solution of one ounce of silver nitrate in six ounces of water is used. A *fresh piece* of clean flannel must be made into a brush as before, and a little of the silver solution being poured into the angle of a dish, which may be tilted up for the purpose, the brush is dipped into it, and with quick light strokes the face of the paper is evenly wetted. This operation should be carried out by artificial light only. Each sheet of paper may be held near the fire, but not so as to make it hot, so as to dry in three or four minutes, and when quite dry and cold should have a second coating similar to the first. It is then ready for use.

This sensitive paper must be kept in the dark, and should be used within a day or two. It is printed by daylight just like p.o.p., and the image is of a rather crude red color. Printing should be carried on until it seems decidedly overprinted.

The prints on this paper may be toned either with gold or with platinum. In either case, the prints must be thoroughly washed before toning, say for a quarter of an hour in seven or eight changes of water. A good bath for gold toning consists of twenty grains of sodium acetate dissolved in half a pint of water, and a grain of gold chloride added. This should be made up the day before it is required. A platinum toning bath can be made by dissolving twenty grains each of citric acid and of common salt in ten ounces of water and adding one grain of potassium chloroplatinite. This is ready as soon as mixed.

The tone of the prints should be judged by holding them up to the light and looking through them, and not by the surface. Toning goes back a good deal in the hypo. After toning the prints should be placed in a 1 per cent. solution of common salt, if they have

been toned with gold, or of sodium carbonate if toned with platinum. After a minute or two in this they can be rinsed and fixed in plain hypo of a strength of two ounces to the pint. An hour's washing completes them.

The writer's preference is for the platinum toning bath, as this gives prints of a sepia to warm black color, the gold tending rather to purple. The strength of solutions and two-fold method of application will be found to give brilliant prints, rich in contrast. If the contrasts are too great, the solutions may be applied once instead of twice, or they may be used more dilute. The latter is better, as the double application helps to secure evenness of coating, and is well worth the extra trouble. If the solutions are diluted, the solution of salt, before adding to the arrowroot, and the solution of silver nitrate, should each be diluted to the same proportion.—P. HODGSON in *Photography and Focus.*

NEWS AND NOTES.

Processes at the R. P. S. Exhibition.—During the last few years exhibitors at the exhibition of the Royal Photographic Society of Great Britain have been requested to name the process by which their exhibits have been produced, and this year as many as 186 out of 211 exhibitors have complied with the request, so that the catalogue now affords us a good idea of the relative popularity of the various processes. The two oil processes come first with a total of 57 prints, while bromide runs them close with a total of 50. If, however, we remember that the bromoil process depends on the preliminary production of a bromide print, and also that in the ozobrome process a bromide is similarly the foundation of the final result, we get a grand total of 92 pictures which owe their origin to the bromide process. This is very nearly half of the total, so that the popularity of bromide printing is unquestionable. Platinum is responsible for 37 prints, and carbon—including ozobrome—for but 23, and the comparative neglect of this fine printing process is much to be regretted. Of the remaining processes, gum totals 10 prints and albumin 3; while gaslight, gum platinum, and multigum may be described as nowhere, with the poor figures of one print each. The two outstanding features of an analysis of the catalogue seem to us to be the great and comprehensible popularity of bromide printing and the strange neglect of that very beautiful process, carbon. Somehow people seem to have the idea that carbon is a difficult and troublesome process, whereas it is really a very simple one and also one that is most interesting. The development of a carbon print is to our mind a most attractive process to watch, while the manipulation is extremely easy.

Eastman Advertising Competition.—Unofficially, we learn that the first prize, $500.00, in this year's competition has again been captured by William Sherwell Ellis, of Philadelphia. Bravo, Ellis! it is certainly highly creditable to secure so valuable a prize twice in succession and in the face of very keen competition. Dooner, also of Philadelphia, secures fourth prize. Philadelphia always has been a leader in photography, and seems to have little trouble in holding its own.

The Appalachian Exposition which is being held at Knoxville, Tenn., has awarded the following medals in the photographic section: Ideal Head, silver medals, Southern School of Photography, McMinnville, Tenn. William

Sherwell Ellis, Philadelphia, Pa.; bronze medals, A. T. Proctor, Huntington, W. Va., and Covell Studio, Birmingham, Ala. Portrait Class: Silver medal, Melvin H. Sykes, Chicago. Bronze medals, The Gray Studio, Memphis, Tenn.; Holladay Studio, Durham, N. C.; Frank W. Medlar, Spencer, Iowa; W. F. Elbrick, Nashville, Tenn.; Homeier & Clark, Richmond, Va.; C L. Lewis, Toledo, Ohio; McCoy Studio, Knoxville, Tenn. Figure Portrait: Silver medals, S. L. Stein, Milwaukee, Wis.; W. G. & A. J. Thuss, Knoxville, Tenn. Bronze medals, Ethel C. Standiford, Louisville, Ky.; C. F. Townsend, Des Moines, Iowa; F. Milton Somers, Cincinnati, Ohio; E. E. Doty, Battle Creek, Mich.; G. G. Holloway, Terre Haute, Ind. Ideal figure: Bronze medals, S. H. Lifshey. The Berkeley Studio, Staunton, Va., was awarded a bronze medal for photographs in color; Knaffl & Brakebill, Knoxville, Tenn., a silver medal for the best general display; Knaffl & Bro., Knoxville, Tenn., did not enter their exhibit in competition. It was conceded to be one of the finest and most artistic displays on exhibition.

A Substitute for a Glass Funnel. Convenient as a glass funnel is in the dark room, it labors under the drawback of being particularly inconvenient to clean properly. There are some occasions when it is a necessity, but very often a simple substitute is quite as effective, and wants no washing up. I keep a packet of circular pieces of parchment paper, which are supplied ready cut for tying over pots of jam, in a plate box. When I want a funnel for any aqueous solution, or for a powder, all that has to be done is to fold one of these pieces in half, then in half again, and, if necessary, in half a third time, open it out into a cone, and cut the tip off with a pair of scissors. It may be pinned at the top if there is likely to be any trouble from it unfolding, but in all probability this will be found to be unnecessary. There are very few chemicals the photographer is likely to use which will be hurt by being used with a paper funnel; hydrochloric acid and strong ammonia are the only two I have that I should hesitate to pour through it. When once used, it can be thrown away.

Warm tones on bromide paper by development are usually obtainable by increasing the exposure and proportionately restraining and diluting the developer, which may be of any kind from pyro to rodinal. A developer recommended for the purpose, which gives warm tones readily and does not stain, is Eikonogen. A stock solution is made as follows: Eikonogen, 100 grams; sodium sulphite, 1 ounce; potassium carbonate, 160 grams; water, 8 ounces. One ounce of this developer, plus 4 ounces of water and 40 drops of 10 per cent. bromide of potassium solution, gives, with an eight-times normal exposure, good sepia tones. Increasing the exposure and further diluting the developer, and adding more bromide, gives colors to reddish brown. An acid hypo fixing-bath should be used, and the prints allowed to remain in it for a good time to secure the most pleasing tones.

The modern high-class lenses probably suffer more in the way of serious deterioration from the accumulation of small defects than from violent accidents; for it must be remembered that when the lens leaves the maker's hands it has a very high degree of polish, so high that the least friction of any hard particles will leave evidence behind it. Since the amount of brilliance obtainable in our work depends on this high polish, it follows that a lens improperly treated will soon suffer, with the inevitable result that in time the loss of brilliance becomes visible even to the general worker.

By Meredith Janvier, Baltimore, Md

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1. Lady Stone-Norton
2. Boy in Pink
3. The Three Princesses
4. Lady Beaufoy

Illustrating Sidney Allan's Article

5. Princess Augusta Sophia
6. Duke of Cumberland
7 Parson of Bradford
8. The Linley Sisters

Illustrating Sidney Allan's Article

9. Mrs. Graham

10. Mrs. Siddons

11. Duchess of Devonshire

12. Family Group

Illustrating Sidney Allan's Article

MASTERS IN PORTRAITURE—THOMAS GAINSBOROUGH.

BY SIDNEY ALLAN.

GAINSBOROUGH was a contemporary of Goya, and, although his art lacked the modern realistic note of the latter, his influence in portraiture is felt to this very day. It is even more pronounced than that of the Spanish painter. Extreme realism is never popular, particularly not in portraiture.

Gainsborough is the exponent of idealization, of elegance and refinement. He endeavored to please his patrons, not so much by flattery as by consummate workmanship, and it was his good fortune that they possessed sufficient taste to appreciate his picturesque arrangements and delicate color harmonies. He followed the tradition of the court painters that had preceded him—Van Dyck, Sir Peter Lely, and Gottfried Kneller. Gainsborough's technique was influenced most by Van Dyck, but had also profited by the study of the other two men's work.

A portrait, first of all, had to be beautiful. It had to please the beholder by its grace and pictorial charm. This was not particularly favorable to characterization, a shortcoming that is a natural consequence of this peculiar style of portraiture. And the more examples of Gainsborough's work we see at one time, the more palpable this similarity becomes. His figures and bust portraits resemble each other to an alarming degree. It is always the same pose, the same treatment of drapery and hands, and the same background. This may be considered a virtue by many. A Gainsborough is recognizable at the first glance, and to possess such a distinct and individual mode of expression is possibly a great achievement. But it deteriorates too easily into mannerisms. It is unjust to the sitter, and does not fulfil the highest vocation of portraiture —to show us a distinct personality in as efficient a manner as possible. It puts workmanship on a higher pedestal than characterization, which, although permissible in other branches of painting, fails to convince us in portraiture.

The Gainsborough tradition has still many followers, among painters as well as photographers. Poses like Figs. 1 and 4 we have encountered innumerable times in exhibitions and fashionable showcases. And the Gainsborough backgrounds are met more frequently than any others. In the photographic profession they have been rather crudely imitated. The old studio background and the "painted in" background show appreciation for the general effect, the silhouette, the division of light and shade of some of Gainsborough's most superb paintings, as Figs. 1, 2, 4, and 9, but have been subjected to too frequent and thoughtless application. They have lost their original flavor and become stale and stereotyped.

Gainsborough's treatment of backgrounds was a trifle elaborate, but always yielded a certain pictorial charm and picturesque effect. And, although figures and scenery were separated, the light in the figure and background never conflicted. In photographic portraiture this is generally not the case. The backgrounds are artistically false. It is difficult to imagine anything more incongruous than a full face illumined on one side from a skylight above, with a landscape behind it showing light on distinct objects which, according to commonsense calculations, must have come from an entirely different direction. If the

background is indicative of any light source, the light could come only from that quarter; but in many portraits it is applied on the other (darker) side of the face. These errors of lighting are so manifold and painful to contemplate that it would be useless to enumerate them.

Aside from this lack of chiaroscural harmony, they show still another equally serious shortcoming. They are not true to the character of our time. Their classical air has nothing in common with our men and women of today. They mirror the dying splendor of the Renaissance as reflected in the British æsthetic of the eighteenth century. An English lady in a plumed picture hat may look charming leaning on a stuccoed balustrade or sitting among the lofty trees of a park (vide Fig., 11), but it would be rather inappropriate for the wife of a Gotham broker in a French tailor-made gown. The plain simple background that consists merely of a differentiation of tonal values without object matter (as in Fig. 10), or the background of a home, if the manifold objects of a modern interior could be subdued into a tonal harmony, are by far preferable. They are more artistic because they are truer to our age. The Gainsborough, as delightful and refined as it may be, always looks a trifle theatrical if applied to modern figures.

The charm of Gainsborough's attitudes, on the other hand, is irresistible. He is best in standing figures of women. He generally places them in the centre of the canvas, with the hem of the skirt close to the lower margin (Figs. 1, 4, 9, 11). The poses are characteristic of their station in life. Fig. 9 is particularly graceful. They are ladies who live a life of leisure, who make no visits, but only receive; their movements are measured and elegant, and their environment is made up of Renaissance architecture and the scenery of secluded English parks. He was the born painter of aristocracy and more adapted to the representation of beautiful women than of rugged manhood, although "The Parson of Bradford," Fig. 7, is a noteworthy exception.

Gainsborough paid less attention to the silhouette of his figures than most portraitists; he preferred to concentrate his skill of composition in the flow of lines in the drapery. Notice the shawl in Fig. 1, and the end of the train in Fig. 4, also the general distribution of folds, the placing of the highlights, and the direction in which the leading lines run. The silhouettes of the background are arranged in such a way that they not merely fill the large space around the figure, but that they accentuate the figure composition. This is particularly noticeable in Fig. 5. The circular cut on the top and the diagonal line that separates foreground from middle distance make a good space division and at the same time explain the lighting. The light actually comes from the sunset, and all the shadows fall toward the right. A similar effect may be studied in Fig. 4. In Fig. 1 the light comes from the left front. The background merely shows the reflected evening glow of the eastern sky.

Fig. 11 shows too much detail, but this is a fault of the reproduction, as it was made from an engraving and not from a painting. The picture is rather ordinary, and I fail to understand why one of our multi-millionaires should value it so highly as to have paid $350,000 for it.

In his groups Gainsborough was less successful. Fig. 8 is an exception, as fresh and dainty as a two-figure composition possibly can be. This is largely due to the simple division of light and shade. Figs. 3 and 12 are too elaborate. It is almost impossible to show three figures in full light. The lighted planes should never occupy more space than the darker ones. There are too many points of interest and the composition becomes

restless. Fig. 12 also shows too many points of interest. There should have been a more favorable concentration of light, and some of the bodies should have been lost in the background. To represent six portrait figures in one picture is always a difficult problem, and it surely cannot be solved artistically by showing everything in minute detail. The placing of the heads, however, is exceedingly clever. Notice the various distinct lines and shapes that underlie the composition. The diagonal line of four heads, the vertical line of two heads to the left, and the triangle of three heads in the centre. It should have produced a better picture, but the shortcomings are not due to the line and shape arrangement, but to the light and shade distribution.

Figs. 6 and 7 show the simple way in which the painter composed his bust portraits. A full face on a three-quarter bust view (Fig. 5) is probably the most favorable way to handle the subject within an oval. The entire full face view (Fig. 6) is too symmetrical. Gainsborough painted dozens of these oval portraits, and invariably used the plain background. This is a lesson in itself. The standing figure on a wide canvas needs some accessories; the bust portrait of oval shape would be spoiled by it.

Fig. 7 is an excellent light study and quite an unusual composition. Notice the repetition of the circular line of the table in the shape of the shoulders, and how the horizontal lines of the reading stand are complemented by the vertical line of the window.

The portrait of Mrs. Siddons, Fig. 10, is world famous. It has all the finer characteristics of the painter's work and none of its faults. The precise lines of the face, the beautiful flow of the drapery, the graceful pose, the black accent of the hat, the lighted shape of the figure against a plain middle-tinted background, are all worthy of a master. It possesses, as few pictures, the fine native flavor which is characteristic of the English school, and which is traceable in all good portraiture of our time.

AN IMPROVED METHOD OF DRY MOUNTING.

THAT a mounted print should lie flat and without cockle or curl is an absolute desideratum. I think nothing is more destructive of pictorial illusion than an uneven surface.

When I first tried multiple mounting my prints were a wonder to behold, so varied were the patterns in relief they assumed when dry.

A vast amount of ingenuity has been expended in the endeavor to overcome this apparently simple trouble; but from considerable experience I find there is nothing to equal dry mounting, which is far ahead of anything else, being cleaner, quicker, and neater than the most carefully executed paste.

In any method of mounting the operations are somewhat prosy, tedious, and messy, but a good print is worth finishing.

The process I am about to describe is one I have been using for some time and with which I have been very successful, as I find it has no tendency to cockle even the thinnest of prints or mounting papers; further, the mountant is very cheap, it requires no costly outfit, and the manipulation is exceedingly simple. It is as follows:

Coat the back of the dry and preferably untrimmed print with a solution of shellac. When the print is dry, it may be trimmed and mounted at once or at

any future time. To mount it, all that is necessary is to place the print face upward on the mount and press it into contact with a hot flat-iron.

The Mountant.

For a time I used a mountant made by dissolving shellac—either orange or bleached—in wood alcohol. When using this adhesive, however, I found that my prints frequently developed mysterious stains in color, running from a faint rosy pink down to a deep brown. In area the stain varied from a small spot up to sometimes half the print. The darker stains mostly made their appearance after the prints had been coated with the shellac previous to mounting, and the lighter ones after the print had been mounted. This was a great drawback; and as the stains were not confined to any one brand of paper, it was some time before I found out what caused the mischief.

The root of the evil is the alcohol, which, with certain papers, goes right through to the face, making an indelible stain. This I found could be prevented if the prints were given a protective coating on the back, but as this means a double treatment I did not adopt it. As some of you might want to try it, however, I will give you particulars.

To 2 ounces of water add ½ ounce of gum arabic; completely dissolve it, and then add 50 minims of formalin and 16 minims of glycerin.

Brush this over the back of the print and allow to dry thoroughly before coating with the shellac; the gum, when dry, is insoluble, and makes the print practically waterproof.

To avoid this double coating I am now using an aqueous shellac mountant which is just as simple to make and to use, is quite as adhesive, and it does not stain the print. The formula is:

White shellac	2 ounces.
Borax	5 drachms.
Soda carbonate . . .	1 drachm.
Water	7 ounces.

Fill a saucepan half full of water; in this place a glass jar containing the seven ounces of water, and bring the whole to a boil over a rather slow fire. When the water in the jar is boiling, add the borax and carbonate of soda, and boil it for five minutes, after it has dissolved; then slowly, and with constant stirring, add the shellac, which must be finely powdered; boil the mixture for an hour, and stir frequently.

When finished, the mountant should be perfectly liquid, containing no undissolved shellac, of a light brown color, and extremely sticky.

The shellac used should be fairly fresh, and must not be powdered until about to be used. The bleached variety, when exposed to the air, oxidizes; and for this reason it should always be obtained from a reliable source, and until it is used you must keep it carefully in water. Lac which is covered with a white crust has been badly kept, and should not be used.

The mountant should be kept in a wide-mouthed glass bottle fitted with a screw cap. If exposed to the air the water evaporates, and it will become an unwieldy mass.

Coating.

Before coating, the print should be bone dry. Place it, untrimmed, face down on a clean sheet of paper and coat the back of the print with the adhesive, using a rather stiff brush. Take care not to get any mountant on your finger or on the face of the print. I usually hold down the print by one corner and sweep boldly over the edges. The prints are soon dry—in ten minutes or so—and by the time you have backed your last

print the first one will be dry; they may either be trimmed and mounted at once, or stored away, as they will keep perfectly in a dry place.

Mounting.

The trimmed print is now laid in position on the mount and is ready for the iron. An ordinary everyday flat-iron is heated until any moisture applied to it sizzles. There is a fair degree of latitude in the temperature of the iron, but if it is too hot the print is apt to curl up, while if too cool it cannot dissolve the lac. Now get a piece of brown paper, larger than the print, and run the iron over both sides of it; this is to be placed between the print and the iron, and it is an important point, for unless the paper is well ironed on both sides it will stick to the surface of the print and ruin it.

The print being in position on the mount, the brown paper is laid on top, and the whole well ironed. Should the iron not run smoothly—and if it does and carries the paper, the prints are not liable to be scratched—sprinkle bath-brick on a sheet of brown paper and well clean the iron. The mounting is complete in two or three seconds if the iron is at the right heat.

Should it be desired to use more than one mount, coat the back of the first mount with shellac. When dry, trim it. If it is a thin mount, as most first ones are, it can be mounted in the same manner as the print; should it, however, be rather thick, turn it face down and place the second mount on top, also face down, and iron the back of mount No. 2. When "faced" surface mounts are used I find this method acts very well. Some of the rougher mounts, however, take an enormous amount of adhesion, and for this reason when using these papers I prefer to use adhesive tissue, which is made by coating thin tissue paper on both sides with the mountant. It can be purchased ready for use in stock sizes. When dry, it is attached to the mount by a touch with a hot iron; tissue and mount are then trimmed together and mounted either from the front or the back according to the thickness of the mount.

Finished bromide prints can be greatly improved in appearance by giving the surface of the print a fairly vigorous rubbing with a tuft of absorbent cotton dipped in *wood alcohol*, and when dry it can be polished with a piece of dry, soft, clean linen. This will remove any dirt which may have got on the face of the print—JAMES EVERTON, in *The Photographic Monthly.*

INTENSIFICATION BY MERCURIC CHLORIDE AND FERROUS OXALATE.*

IT is the aim of the scientific worker to get methods that yield definite results. A definite result is one that can be quantitatively foretold when the starting point and the process are known. With this end in view, I have done a good deal of work on intensification processes.

The value of intensification is not appreciated as I think it ought to be. Its chief advantage is that it enables the worker to increase the density of his negative after it has been critically examined. No such examination is possible during the development, so that if the desired density could have been obtained by further development, which is

* A paper read by Mr. Chapman Jones before the Royal Photographic Society of Great Britain.

often impossible, intensification offers considerable advantage as compared with the alternative method. The discredit that intensification suffers from is doubtless due to the fact that it is regarded as a curative process for a fault that ought not to have existed (an essentially false way of looking at it), and also to the use of unsuitable methods or good methods in an improper manner.

It may be worth while, therefore, to set down the characteristics that render a method reliable: (1) It should produce an equal change throughout the whole negative; that is, every particle of silver should be acted on in exactly the same manner. To ensure this, every reagent must be allowed to act thoroughly, and must be unable to produce any other change than the desired reaction. It is especially necessary to guard against any dissolving (or in photographic language "reducing") action, because such a change must be uncertain, and it is hardly possible for it to be proportional, seeing that it cannot be complete. (2) The added matter must have no selective absorption; that is, it must be free from color, or it will vary in its effects according to the color sensitiveness of the surface exposed beneath it. (3) The final image should be permanent. (4) I think it is well that the method should be definite in the quantity of its effect; that is, not a continuous process, such as the deposition of silver on the image, as in physical development, because even if such a method could be relied upon to give a strictly proportional result, one would have to guess when to stop it, and there should be no guessing in a scientific operation. (5) And of least importance, the intensified negative should preferably be as amenable to further treatment of any sort as the original.

It should be understood that these *desiderata* refer to methods suitable for scientific work, and though doubtless generally desirable, exceptional cases will be advantageously treated by special methods. The mercury and ammonia, and the mercury and silver cyanide methods, for example, give unproportional and impermanent results. For negatives of line subjects that are only wanted for a few weeks or months, the want of permanency is no drawback, and the feeble intensification or, indeed, reducing effect that these processes show in the slightest deposits, is an advantage, as it tends to clear the lines. Again, the amateur is not very particular about the gradation of either his negative or his print so long as he gets a result that pleases him. The chromium method that Mr. C. Welborne Piper advocated may serve his purpose, although it gives a colored deposit upon the original image and an indefinite amount of it, and involves a dissolving action.

It is twenty-two years since I first publicly urged the merits of the mercury and ferrous oxalate method. The chief results of my comparative examination of this and other methods will be found in the Society's *Journal* for January, 1890, January, 1893; June, 1897; and from the strictly chemical point of view, in the *Journal of the Society of Chemical Industry* for 1893, p. 983. For nearly five and twenty years I have used no other method on negatives of value. I have seen scores of other people use it, and heard of the experience of many others. So far as I know, this method still stands where it did, as the only method that fulfils the conditions laid down, so that some of the results of this experience and a few new observations may be of value.

First, as to the permanence of the image. When a negative bleached with mercuric chloride is acted on by ferrous oxalate, the image that remains consists of an amalgam of silver, the metals being in the proportion of one atom of each, AgHg. If the process of intensification is repeated, each atom takes another

atom of mercury and we get an amalgam in which the proportion of the metals is as in the formula $AgHg_3$. In practical negative making it is very rarely that two intensifications are necessary, therefore we are chiefly concerned with the first, but still, to a certain extent, with the second amalgam. I have prepared these two amalgams in bulk. The first is a gray powder, quite solid and dry in appearance, showing no indication that it contains the liquid metal mercury. The mercury in it is not in the liquid form. The second amalgam, $AgHg_3$, does contain liquid mercury, and a considerable proportion of clean mercury globules can be squeezed out of it by pressing a small quantity into a fold of chamois-leather, when mercury passes through the leather. This second amalgam, when in bulk and the bottle containing it is turned from side to side, reminds one of undried sand from the seashore, it retains the shape of the side of the bottle as it falls away from it. A small quantity of the AgHg amalgam lost mercury when heated in a steam oven at the rate of 0.47 per cent per hour. This rate of loss would not continue, because to drive the last portions of mercury off from a silver amalgam needs a temperature equal to nearly the melting point of silver. But this might be thought to indicate a possible want of permanency. The conditions, however, are widely different when, in a negative, the particles of amalgam are locked up in gelatine. A portion of a negative in which the image consisted of nearly 93 per cent. of mercury after heating at 100° C. for forty hours showed no loss of opacity whether varnished or unvarnished. Indeed, there was slight gain, due doubtless to the shrinking of the gelatine. This experiment was done twenty-one years ago, and the plate still appears to be unchanged. I have an experimental negative intensified in parts, once, twice, three times, and four times, which I showed to the members of this Society twenty-one years ago. It is here now, and the only sign of change in it is a metallic shimmer near the edge that is often seen on old unvarnished negatives, whether intensified or not.

A short time ago I made a further attempt to get evidence of the loss of mercury from intensified plates, by putting gold leaf on the surface of unvarnished pieces of negatives containing various proportions of mercury. These were left, each in a separate small box, for a month, and during eighty-four hours of the time were heated to a temperature of 85° to 90° C., averaging about 88° C. Assuming that the rate of volatilization of mercury is proportional to its vapor tension, this period is equivalent to something more than a year at ordinary temperatures. In no case could I detect any sign of mercury on the gold leaf, though one plate contained fifteen times as much mercury to the silver, as in the case of one intensification, and I made a few cuts with a knife across the film to let the mercury out if possible. Gold leaf placed 30 mm. above a globule of mercury was well whitened after four hours at 85° C.

A negative intensified sixteen years ago —not experimentally, but in the ordinary course for the sake of the print— and varnished, shows absolutely no sign of change. I do not know of any case in which change is evident, and select this negative as an example only because I happen to have a print made before and one made after intensification.

Thus by different methods and repeated and prolonged experiments I have been unable to get any evidence of loss of mercury from intensified plates even when the metal is present in a very much larger proportion than it ever would be in ordinary work. It may, then, be fairly claimed that the image so intensified is permanent. But there is also the fact that the whole of the silver

of the original image remains in the metallic state, and that if it were possible to lose all the added mercury, the silver itself would remain as at first. This is not the case in many other methods, as, for example, when either sodium sulphite or ammonia is used instead of ferrous oxalate.

Failures to work this process successfully have sometimes come to my knowledge. That the fault is not in the process is obvious, and as further proof of this, I would say that I have repeatedly, for other than strictly photographic purposes, intensified plates up to seven or eight times without any difficulty or irregularity. The slightest fault in the earlier operations would in these cases have finally become very conspicuous.

Insufficient fixing or washing will lead to irregular deposits. The fixing should be prolonged, preferably in a new or little used bath, after it is apparently complete. With regard to washing, ordinary analytical methods that have sometimes been applied to determine when the washing has done all that it can do, are not serviceable, any more than they are to determine the suitability of a sample of silver nitrate for emulsion making. Even the best designed washing troughs have their faults, and will not wash the plate clean in constantly running water in an hour, and the results show that the water moves in currents. I suggest washing for two hours at least, and in any case to allow the last hour's washing to be in a flat dish, changing the water every ten or fifteen minutes. I do not know of any reagent that will by its "destructive" or other action on the hyposulphite appreciably lessen the time necessary for the washing. The irregularities due to want of proper care in these matters are not at all peculiar to this method of intensification.

A plate so fixed and washed should lead to no trouble. But if hard water is used, there will be a deposit of calcium oxalate, and perhaps a very little brownish basic iron compound on the film, and and this is unsightly. The calcium oxalate will disappear on varnishing and can do no harm. The iron deposit is generally so very small, if present at all, that it may be neglected. If an attempt is made to rub off such a deposit from a dry negative, it will almost certainly be made dirty or the film will be damaged. But it is possible to get rid of such deposits by washing the plate for a ew minutes after the use of the oxalate and then putting it into hydrochloric acid (the strong acid diluted with ten to twelve times its bulk of water) until the deposit has dissolved, which may require up to three or four minutes. Mr. W. E. Hogg pointed out the practicability of this method to me, and obtained perfect results after two intensifications with roll-film negatives. These films having gelatine on both sides are much more troublesome in this respect than plates coated on one side only. The method certainly succeeds also with many makes of plates, and without undue risk of frilling.

A difficulty that sometimes presents itself, though not in any sense peculiar to this process, is the reticulation of the gelatine when the weakly acid mercuric chloride is put on it. This is probably a question of the gelatine used by the maker. I think that any plate ought to withstand the action of such reagents. Having the acid in the mercuric chloride solution reduces the tendency in this direction.

FEW lenses will not give fine definition if stopped down to $f/64$. It is the crisp definition at $f/6$ that costs money.

Lenses should be kept in the dark; some glasses are liable to become yellow in strong light.

Bubbles in a lens, if small and not very numerous, do not practically affect the quality of the lens.

INTENSIFICATION: THE BEST METHOD.

BY REV. JOHN GMEINER.

INTENSIFIERS, like developers, have appeared in bewildering numbers since dry plates are in use. Which is the best for all-around purposes?

The writer has tried about all intensifiers or intensifying methods that have become prominent since the appearance of dry plates and seemed worth trying, and, after many experiments, decided years ago on using a certain method of intensification which, at least for his own purposes, he considers the best for negatives, lantern slides and bromide papers.

Some intensifiers give more intensification than one occasionally knows what to do with; others exaggerate the contrasts to an unpleasant degree. Some require a most careful manipulation, and a little oversight results in failure and spoiling of the negative, slide or bromide paper. Some give but little intensification, and a repetition of the process improves matters little or not at all. Some methods of intensification can be used but once, and if the result is unsatisfactory, there is nothing else to be done but to be content. After the use of some intensifiers, reduction, if desirable, is out of the question. Some intensifiers are inclined to stain the film or spoil it later. Some intensifications are not stable but change in the course of time, usually for the worse. Some intensifiers may do for negatives but not for lantern slides or bromide papers. Some methods of intensification require more time and patience than average human beings have at their disposal, and some are so filthy and nauseous that they should be used only in back yards, where filth and stench would be less objectionable than in a room.

An all-around good method of intensification ought to have the following qualifications: It ought to be cleanly enough for average civilized people, and easy enough so as not to rile one's good humor. It ought not to include too dangerous poisons. It ought to give a fair, proportional, and certain amount of permanent intensification. It ought to leave the film clean and clear. It ought to be possible to repeat the process as often as necessary, and to reduce the intensity, if desirable. An all-around good method of intensification should be applicable not only to negatives but also to lantern slides and bromide papers.

After various experiments the writer has found about every one of the generally recommended intensifiers wanting in some one or other of the qualifications just mentioned. The one method of intensification which comes nearest up to the ideal of the writer is that advocated by Chapman Jones, were it not for the practical difficulties attending it. Mr. Jones says in his *Introduction to the Science and Practice of Photography*, page 201, London, 1895: "The only method of intensification that is theoretically and practically simple, that gives an image of known and stable composition with a substantial but not too great an increase of density, that may be repeated any number of times upon the same negative so that any density may be obtained in the end, and that can be depended upon in every desirable way, consists in the application of ferrous oxalate to the image bleached by mercuric chloride."

Mr. Jones has thoroughly investigated the subject of intensification and may be considered an authority on the reliability of the mercurial method of intensification; but his particular process presents some practical difficulties,

which, no doubt, others beside the writer have found. The *Year-Book of Photography*, 1898, page 185, observes: "Ferrous oxalate, though possibly the theoretically correct blackening agent, is of little or no value practically." To use ferrous oxalate for the purpose indicated, it would be necessary to have a quantity of distilled water on hand, which many have not got, and to use extra trays and an extra room or place, so as not to get any of the iron solution where it is not wanted.

In searching for the best method of intensification it would seem to be advisable to adhere to mercurial intensification and to look for another blackening agent that possesses the good qualities of ferrous oxalate without its practical inconveniences. Quite naturally the use of ordinary alkaline developers suggest itself to take the place of ferrous oxalate. "Such procedure," says Mr. Jones, "certainly leaves a pure metallic image; but in no case with a great number of different formulæ tested by the author was the whole of the metal left behind. Generally, from 20 to 40 per cent. of the mercury was dissolved out by the developer."

Even if so, a good and permanent mercurial intensification of from 60 to 80 per cent. was gained.

Now the question is, may not an alkaline developer be so compounded as to reduce the loss of mercury to practically unnoticeable proportions? What ingredients of the developer dissolve out mercury? It seems to be the sulphite and the sodium carbonate, and it seems to the writer that these two ingredients may be sufficiently reduced so that they cannot dissolve out much mercury during the comparatively short time the blackening is going on. Acting on this view, the writer years ago adopted substantially the following method of intensification, and has found nothing better since.

First bleach the film in the following solution:

Mercury bichloride	2 drams.
Potassium bromide	2 "
Water to make	16 ounces.
Hydrochloric acid.	16 drops.

This solution is easily prepared, or any good druggist will prepare it. It keeps indefinitely, especially if kept in a dark place or if some dark paper is wrapped around the bottle. Put as much of the solution as is required into another bottle and use it as long as it works sufficiently well. When it begins to work too slowly, pour off about one-half of the used solution and add as much again from the unused solution.

After the plate is bleached give it one washing, then put it into a strong solution of common salt for about three minutes. This seems to have a clearing effect. After this give it yet about three washings at short intervals.

Next pour on the following developer:

Hydrochinon	1 grain
Sodium sulphite	4 "
Potassium bromide	1 "
Acetone	5 minims
(Or, instead of acetone, sodium carbonate crystals	2 grains
Water to make	1 ounce.

If it should seem necessary, add later the same amount of hydrochinon with sulphite and acetone, or sodium carbonate, as indicated above, but no potassium bromide. This developer is easily prepared and keeps well in the following separate solutions:

Hydrochinon, 1 grain; sulphite, 4 grains; water to 1 dram or 60 minims.

Sodium cabonate and potassium bromide each in 1 to 10 solution.

Like the bleaching solution, the developer may always be kept on hand ready for immediate use. After redeveloping the plate or bromide paper, give yet three washings at short intervals, then dry it.

The result will be a good, clean, and permanent intensification, and if not sufficient, the process may be repeated indefinitely with continual increase of intensification. After repeated intensifications the tone changes somewhat toward grayish. With the amount of potassium bromide indicated in the developer no "pinholes" will appear.

The bleaching and developing should be done in a rather weak light to prevent mercury stains, which, if they should appear, are usually of little consequence.

The developer ought to be at about 70° to 75° F. to work well. Rocking the tray during bleaching and developing should be done, especially at the beginning of the bleaching and darkening, to get even results. If the water used for washing the bleached plate is strongly alkaline, it ought to be neutralized or slightly acidified with hydrochloric or citric acid before using.

This method of intensification may not be the best possible, but it is the best all-around the writer knows of.

COLORING PORTRAIT ENLARGEMENTS IN OIL.

BY ARTHUR TERRY.

[THE following practical article on coloring portrait enlargements is by an expert who is well qualified to write on the subject and is reproduced from our esteemed contemporary the *British Journal of Photography*. The demand for colored portraiture is a natural one; unfortunately very few colored portraits are natural.—ED. W. P. M.]

With the greater interest now manifested in all that pertains to the photographic art during the last decade is a desire among many to become acquainted with some of the popular means of finishing photographs, both large and small. It is to meet the wishes of such that the following hints are offered, giving instruction in all that relates to working up a likeness in oils. A good bromide enlargement of a suitable subject when colored is capable of being made into a veritable work of art if manipulated by a skilful hand. Who does not admire the beautiful lifelike effects, the charming flesh tints, and the remarkable resemblance to the original which can be produced on the matt surface of an enlarged portrait, which lends itself so admirably to this purpose? In working upon the photographic basis, it is possible to obtain, with comparatively few colors, wonderful results in all variety of flesh tints, and by this method all the half-tones and pearly grays which are so essential to a well-finished portrait can easily be obtained. It is not a matter of creating a likeness with which we have to contend, but the more pleasant and far less difficult one of so placing the colors as to avoid losing any of the photographic expression. With ordinary care and practice this can in time be accomplished.

In offering the following hints, therefore, on how to finish photographic portraits in oils, I do so feeling assured that with patience and perseverance any one with a taste for painting may attain a fair amount of success if my instructions are carefully carried out. I shall endeavor to place before my readers in as simple and concise a manner as possible the method of coloring I have adopted with great success during the twenty years I have been artist to the photographic

profession. I think I may claim my system of coloring to be entirely original. I do not know that I follow the style adopted by the profession generally. For instance, the usual way with most photo colorists is to fill in the background first, then the drapery, after this the accessories, and finally the flesh. I reverse this order; in fact, there is a considerable difference in working up the enlargement in every way, as will be seen later on. All I purpose to do, however, is to state my plan and leave it to the discretion of the student to follow his own course of treatment when qualified to judge, as one naturally gets into a style which best suits one's taste and convenience.

To be really successful as a photo-painter, one or two things are essential, which are good sight, a steady hand, a taste for the work, and perseverance. All the better if my reader has had some experience in portrait photography, however slight, and especially what relates to character and expression in the picture of a face. It does not follow that an insight to photography is really necessary, as much is learned when operating with the colors; in fact, success can only be attained after many failures. A good plan is to take note of the modelling, light and shade, and other points of any good photograph that you may have in your possession, and if you do this, and follow carefully all the hints herein given, I think you will be amply repaid by eventually being successful in finishing a photo-enlargement in oils.

Material Required.

The requisites for a start are few and inexpensive. It is not essential to have an elaborate outfit, as many would imagine. The following will suffice, and may be obtained from any artists' colorman: A good, firm easel, full length; a strong palette, not too large—I prefer a small one, which allows you to get near your picture without danger of touching it, as occasionally you may need to rest your left hand on the easel-peg for steadiness in preference to using a maul-stick, which many painters do. You will also require palette knife, drawing board, a bottle of linseed oil, one of turpentine, and a piece of clean linen. With respect to brushes, I use the softer kind mostly, with one or two hog-hair for special purposes. There are now brushes on the market which very much resemble sable at about half the cost. They are Siberian ox-hair, and are not only very pliable but durable, and with these one can execute fine work and preserve the likeness better than when using hog-hair entirely. You might get three soft brushes, say, Nos. 4, 5, 6, and the same sizes in hog-hair, with a larger one which you will require for backgrounds. Either round or flat hair will do; I prefer the latter. You can allow your brushes to remain in linseed oil after use, or clean all paint off with turpentine. I wash mine well in hot water, using plenty of soap; they are then nice and clean when required for use again.

I may here state that it is well to clean all paint off the palette every time it has been in use, for the paint soon sets and there is nothing which irritates one more (when painting) than having everything dirty. You will find that not only your palette and brushes, but your hands also, will be liable to get soiled unless you exercise great care.

Now, with respect to colors. Any maker's will do; and you might get the following single tubes: Flake white, Naples yellow, light red, brown madder, Indian red, raw umber, bitumen, terre-verte,. burnt umber, lamp-black, cobalt

blue, crimson lake, Payne's gray, yellow ochre, Prussian blue, emerald green, light chrome, and megilp. It is not necessary to work with all the above at the same time, but with them you can get almost any effect desired. When using the colors for flesh tints the first twelve must be placed around the palette in the order given, with flake white to the right, and each color about an inch apart. The megilp, which is used as a medium, should be in the centre of the palette. Guard against putting too much paint on the palette at one time; for painting flesh there is no need for more than a very slight portion of each color.

The Enlargement.

These are now produced by many different processes from the negative, and can be obtained from any photo-enlarger. For painting upon there is nothing so serviceable as a good bromide. The paper adapts itself well to the colors; it needs no preparation, as the gelatine surface prevents the oils from drying in. In the case of some papers it is essential to give them a coat of weak gelatine solution so that the oils will stand. It is a good plan for beginners to cut out likely subjects from the illustrated magazines, etc., which will answer all requirements if mounted on cardboard and properly sized. Of course, two pictures of the same person would be needful, one of which will be needed as a guide. The larger the features the better, as you can then see all the detail clearly. Whether a paper cutting of some person or bromide enlargement, choose a portrait with plenty of character in the face. The high-lights should be nearly white, then half-tones, and deep, clear shadows. Let the lines be well defined, an elderly person by preference.

An advantage with bromides is that it is possible, after once having painted the face, to clean colors off again while the paint is wet by using a clean cloth and a little turpentine. You can then repeat your coloring operations and so gain practice. In doing this, note all defects, and try to improve upon them. With care there is no reason why you should not utilize one enlargement time after time.

Before you proceed to color the portrait, tack the enlargement, which should be mounted, on to a board in order to keep it firm. You then apply linseed oil over the part you intend to paint—the face, for instance. Wipe off the oil with a piece of clean linen, being very careful not to leave any fiber from the cloth. This is done to make the colors work smoothly. Besides it is useful in bringing detail out of the enlargement, as will be seen. Your picture is now ready for the first application of color. I presume you have placed your subject on the easel in such a way that you can get at it without difficulty. I always stand to paint, as it affords more freedom of action. Hold your palette in the left hand, along with brushes and the small print which you will require as guide. A few soft brushes are all that is necessary at this stage. Now, having your colors nicely arranged, place some megilp in the centre of the palette, then dip one of your brushes into this medium and thoroughly saturate it so that it comes to a point, when you may take any surplus megilp off by playing it a few times on the palette. Now take a small portion of light red and place it to the left, about two inches from cobalt blue; take a touch of blue and mix well with the red until you obtain a brownish mixture. Keep this well diluted with megilp. You can cool it by adding more blue, or warm it with red, and as you proceed with the painting it may be necessary for you occasionally to alter the tone. Some artists line in

with burnt umber and Indian red (well blended).

Assuming then that you have got the blue and red properly mixed, you may now work on the enlargement as follows: With your brush sparingly charged with color, carefully go over all the lines and shadows of the face, mostly the lines. Put in the deepest shades first, under the chin, for instance, between the eyelids, down the shaded side of the face, the division of the lips, nostrils, etc. You might only just streak a few light warm touches down the side of the nose, the light side of the face, and any other fine detail. I usually mark all the character in a face, even the wrinkles, which can be subdued or worked out altogether if necessary in finishing touches. You may warm, cool, or deepen your colors already laid on at discretion. Sometimes the mouth, nostrils, or inner part of the ears require a little warm tone, and other parts the reverse. A little practice, however, will accustom you to the desired tone, depth, etc. Always keep your color well diluted with megilp when rubbing in, especially so until experience gives you confidence. Then it will be better to stiffen your paint up a bit, both in lining in and when you do the flesh.

Now, look carefully over what you have done and compare with the small guide in your hand. If there are any harsh places, gently soften them with the dry brush. Care must be exercised, however, lest you interfere too much with the lining-in color—for you will be able to modify sharp patches when you apply the flesh tints. Should your subject have any moustache, beard, or whiskers, it will be safer to outline them at this stage, also the eyebrows, for you will require to soften them all into your flesh colors later on. Your mixture for this purpose may be made rather cooler by the addition of a touch of raw umber, bitumen, or lamp black, as the case requires; still keep your paint well diluted with megilp, trace cautiously all the hairs, and so preserve the character and expression. You can introduce high-lights into the moustache, etc., later on by the addition of a little white to your medium. It will be better now to proceed with the face again, and go over it with flesh color, which you do as directed in the next paragraph.

Flesh Tints.

Using a clean cloth, wipe off your palette the mixture you have been using for lining-in, leaving the other colors intact. Now, take a clean soft brush and charge it with megilp as before. This time get a small portion of flake white, and thoroughly mix it with a touch of Indian red and an almost imperceptible bit of Naples yellow. The tint should be rather pale; nearly white, in fact—think of a wild rose color. Apply this mixture to the high-lights of the face, beginning at the forehead, bridge of nose, cheekbones, chin, etc., or you may use your own discretion and start on any light part of the features you think best. Now gradually work down to the deeper shadows or lining-in color with your flesh mixture, slightly cooled and darkened by adding a touch of Indian red and "terre verte," and, as you work towards the lining-in colors, already laid on, carefully blend the edges one into the other. By this means you not only neutralize the pinky condition of your flesh tints, but you will be able to get softness over all the face, and if you stipple all together you will find the enlargement shows through the paint you have applied if you have kept the latter to the proper consistency, and this knowledge will come with practice.

At this stage you may give a little florid tint to the centre of cheeks with a mixture of light red, Indian red, or brown

madder with your flesh paint. Then, with a clean brush, go over the lips with nothing but Indian red, very much thinned with megilp.

Leave the flesh to dry a little now and proceed to paint the hair and beard, if any, bearing in mind that they are usually darker than the moustache.

Your paint already laid on should have stiffened a little by the time you have finished the beard, etc.; your picture also should present some resemblance to the original. You may compare it with guide photo, looking it over critically and see if you have preserved the likeness intact. Some portion of the features may appear too full and others the reverse—or perhaps you have got the flesh too brown, pink, or yellow. These defects, however, can be rectified by the following method: With a small hog-hair brush (brought to a point with your flesh mixture, to which is added a little white) go over all the face again, this time in a stippling manner. Stand with all the high-lights as before, work out any imperfection you may have created, and, if your enlargement has been a suitable one, this process will gradually expose some of its most prominent characteristics and leave the deepest tones and half-tones semi-transparent, also the grays, which are so necessary for giving a life-like effect. Attention should now be centred on the face as a whole. Look over hair, beard, moustache, and eyebrows, and see that they are properly softened into the flesh. Add a few high-lights, and put some crisp touches here and there as required. You have still the eyes to cover, respecting which you will find a special note below, and, when completed, you must leave the face for future attention and proceed to paint the drapery, the backgrounds and accessories.

Great care is required in painting the eyes, for much of the character of a face depends on how they are treated. It is necessary to give them not only life and expression, but also their natural colors. One has only to work upon a number of subjects in order to find out how nearly every one requires special attention. In coloring the eyes, therefore, you must note particularly the way in which the light falls upon them. Only continual practice, however, will give one confidence with these. Need I say that a fine, steady touch is necessary, also a fine brush? Though there is a great difference in the expression of eyes, all are painted in a similar manner, as follows:

You will notice in the ball of every eye a small black dot in the centre. Paint this first with lampblack well diluted, and keep well within the circle. Whatever the color of the eyes, this black dot is always in evidence, and must be put in as described. Suppose, now your subject has brown eyes, you just paint around the ball with bitumen, and between the inner circle of black and the outer edge of ball you fill in with a glaze of bitumen combined with a touch of white, lighter or darker, as the eye appears. Now you paint the white of the eyes, which are not really white, but of a somewhat subdued tone. This can be got with white, black, and a little "terre-verte." Soften the outer edges of the ball into this. It will often be seen that a mere glaze is sufficient for the whites.

All eyes are finished as thus described, and if you keep your colors thin, you will be less likely to lose the likeness. For gray eyes, just go around the ball with thin black, and inside with blue diluted. For blue eyes a mere glaze of cobalt will often suffice. Don't make a mistake and paint any part of the eyes too opaque, or they will look lifeless and heavy. One other matter which it is as well not to overlook, and that is the little white speck often seen in all eyes.

The Hair.

The method I adopt when painting hair is similar in all cases. I find the lining-in process useful in preserving all detail, which must not be hidden with overlapping paint. Begin, then, by putting in all the darkest shades first and keeping the lighter parts well preserved. You can go over these later by adding a little white or Naples yellow to the darker lining-in paint. The following mixtures will convey some idea how to obtain desired effects, but always remember to keep your shadows semi-transparent to prevent heaviness. We will suppose you are going to paint brown hair. A warm effect can be obtained by lining-in with raw umber mixed with a touch of black for darker parts, and afterward going over the lighter parts with a glaze of raw umber mixed with a touch of white, Naples yellow, or light red, according to the warm or cool effect desired. For very warm brown, line in with bitumen or burnt umber, and glaze the high-lights as before. Then again, if you require auburn, or ginger, you may get almost any variety of tint, lining-in with burnt umber or burnt sienna, or even with bitumen, using yellow ochre, Naples yellow, etc., for lighter parts.

Drapery.

Attention can now be given to your subject's drapery, and this can be proceeded with any time after you have painted the face, hair, etc. A soft brush will answer all purposes, and you may work as follows: For lining-in I find a warm color best, and most suitable for costumes of a delicate tint. A little burnt umber and white, or either raw umber and bitumen, will suffice. Keep the tint very faint and thin, and put in all the creases, filling up with a body color of the shade required, which may be cream, pale blue, green, etc., and when all the dress is rubbed in soften all with the badger as before. Black material can be got with simply black for lining-in, white added for filling in and high-lights.

Accessories.

Having completed the drapery, attention must now be centred on the accessories. We will presume your subject is a three-quarter or full figure, with table, chair, or curtain introduced. All you have to do is to line in with suitable warm color. I find nothing better than bitumen or burnt umber well diluted with megilp. Oak, mahogany, or any kind of furniture can easily be imitated if after lining-in you fill up with a semi-opaque color of the tint you require. For instance, a good oak effect can be got with bitumen and white, and mahogany with burnt sienna and touch of white, and with some practice you will be able to paint any object in a similar manner. You must always proceed with this class of work and finish while the paint is wet, otherwise you will get a muddy and dirty effect, If done with one operation, you can join the colors nicely.

In the case of curtains it will be better to soften with the badger as soon as all is covered for softness. Tables and chairs are best not softened if nicely painted. What I mean by softening is that you play the badger gently over paint which has been laid on.

Backgrounds.

Much discretion must be exercised when putting in these, as every subject ought to be studied specially, according to the way in which the features, etc., are lighted. In some cases there is a lack of any studied shadows, the face of the subject being flat and quite to the front. In others the face is three-quarters, with plenty of depth on one

side. In the first case a plain background will suffice, in the latter more relief may be given. It very often occurs that the photographer suits the background to his studio light, and this will be a guide in many cases. You will notice photo-backgrounds are usually lighter on the shaded side of the face, and darker where the light plays on to it; so work accordingly, and vignette gradually as you recede from the face by distributing darker tints well mixed with background color. For ordinary plain grounds you may use white, "terre-verte," raw umber, and a touch of black. Add megilp at discretion, so as to make the paint flow freely. Of course, white greatly predominates in the mixture; and when you have got all covered, you must gently soften with your badger by playing it all over the surface of the paint laid on. Some subjects require warm, and others show off better with cool effects. It is a question of taste; but always contrive to work the backgrounds and drapery while the paint is wet; you can then soften all the edges nicely one into the other.

Sky Backgrounds.

These look very nice when properly painted, and for children's portraits and some subjects are very appropriate. The great point is to obtain a nice cloudy and vignetted effect, and the colors must be delicate and clean. An exception is made with this class of picture by proceeding to paint backgrounds before drapery. If you did the drapery first you would be liable to dirty your sky-tints when softening with the badger: by cautiously using linseed oil instead of megilp you can get a better result. Begin then by going over the outer circle of your picture with white and a little linseed oil, or megilp mixed with the oil, to make it flow better. Paint around your picture to within a short distance from the face. Let us suppose you are painting a bust (and, I may say, it is as well to have enlargements vignetted for this class of background); paint the bottom of your picture as well as the parts referred to. Now darken your paint slightly by adding to the white a little black and "terre-verte." Keep fairly light on the dark side of the face, and work the medium up to the subject itself, gradually softening it with your brush into the white already laid on, and producing as near as you can a cloudy effect. You can now soften all with the badger, after which add just a dab of warm color over the shoulders, and soften this with the badger, also while the paint is wet. You can then proceed with drapery, as already described, only you will need to vignette the lower part of the paint into the background which you have laid on.

Overlooking Flesh Tints.

The drapery, accessories, and backgrounds can often be completed with the first painting, as they are secondary matters; but the face, or flesh tints, and the likeness generally, can often be improved, by a second application of color, or, in other words, a touching-up here and there. But before this is done, the paint previously laid on must be quite dry. In coming fresh to your picture, after having laid it aside to dry for a few days, you will note any defects more clearly, and you will be able to rectify them. So at this stage compare the picture with the guide print again, and see if you have preserved all the main characteristic features. In any case, you can cautiously repaint the flesh, and so add more body color to that laid on, and give a cleaner finish to the face generally. To do this your palette must contain all flesh colors as previously described when rubbing in.

The hair, beard, eyes, etc., must now be seen to, and receive their final touches. A glaze where required, a little more or less color, a few high-lights or deeper shadows. All these points, however, can be left to your own discretion, for in these finishing bits one part greatly depends on another to form a complete and harmonious whole.

You have now completed your painting entirely. The flesh, hair, drapery, background, etc., may seem to you anything but satisfactory. But do not be discouraged; try again, and again. It is only practice you require; get a fresh enlargement of another subject, and proceed from the start again. I have no doubt my method will be a help to you, and that with practice you will attain some degree of success. You will, however, gradually get into a style of your own, and thus gain confidence. I have endeavored to give you a few hints, and if I have laid some foundation upon which you can work, my object will have been accomplished. If need be that I say more, I would advise you to be quiet and alone when painting; and if you should submit your picture to criticism, do not let any remarks discourage you, but rather stimulate you to fresh efforts.

BUYING A PHOTOGRAPHIC STUDIO.

[OUR bright little neighbor, *The Photo-Miniature*, devoted its last number to "Photography as a Business," giving a practical summary of those things that the photographer, out to buy a business, ought to know. The following extracts will interest possible buyers—and sellers. The entire monograph, however, should be read by every photographer in business. It is No. 111 of *The Photo Miniature* series, Tennant & Ward, publishers.—ED. W. P. M.]

It is estimated that at least 3000 American studios change hands every twelve months. This serves to show that many photographers prefer buying a business already more or less established to the alternative of building a new business. Hence it may be profitable to discuss a few of the points which should be considered in the purchase of a photographic business.

In all professional journals one may find advertisements offering business for sale or exchange. Almost invariably these announcements are tantalizingly brief, and seem to offer far too much for the price asked. Evidently they are intended chiefly to invite investigation. The first step, then, when one is attracted by an offer of a business opportunity in a desirable section, should be to write to the advertiser, asking for full particulars, *i. e.*, the things not mentioned in the advertisemement about which you desire information. If these items can be put in the form of questions requiring specific answers, so much the better. While awaiting these particulars, look up the record of the town or locality in which the studio offered for sale is situated, ascertaining its present population and rate of growth, the character of its residents, and the local industries; its special features, such as schools, colleges, large industrial work, etc., likely to offer scope for the prosperity of the business, the amount and character of photographic competition, the nearness of other towns and whether they offer serious competition, and so on. With this information, should the advertiser send you promising particulars of his offer, a personal visit to the studio for closer investigation is advis-

able. This visit may advantageously extend over a few days or even a week or two if the business seems worth while.

If a personal inspection of the town, the location of the studio and its business possibilities give a favorable impression, arrangements should be made for a close investigation of the business offered for sale. This should begin with the books of the studio, which should show the yearly returns (or turn-over) and the net profits of the business—say, covering a period of two or three years. It is desirable that these two items should be considered together, for it may be that a business doing a turn-over of $20,000 a year will show less profit than one with half that turn-over. Thus a comparatively small business, with fairly high prices for its work and little loss in bad debts, will show a much larger net profit per year than a big popular business at low prices, leaving only a small margin over cost of material and standing expense. As a general thing, it will be fairly easy to ascertain the volume of business done by the studio during any stated period, but much more difficult to get at the cost of doing the business, and it is the latter which determines the net profit.

In this inspection of the books, it is desirable to see how the sittings shown by the studio records have been obtained and whether they were really paid for, and whether the prices prevailing have been steadily maintained. This will disclose whether free or invitation sittings swell the record of income, and whether the volume of business has been "boosted" by unprofitable special offers, such as cut-prices, etc.

It is usual in the sale of a business to show the turn-over for at least two or three years, by which one may learn whether the business is growing or declining. If the latter, the cause should be sought. It may turn out that formidable opposition has interfered, or that the locality is changing in character. It should not be forgotten, however, that a declining business may have profitable possibilities, the decline being due, perhaps, to some lack in capital, business ability, or personality of the present owner.

The actual value of the fixtures and apparatus may next be looked into. As a rule, photographers are apt to place this at too high a figure, looking only at original cost and forgetting depreciation by lapse of time or use. In some cases it may be desirable to get the price asked for (or stated as the value of) fixtures, furnishings, and apparatus deducted from the sum asked for the business as a whole. This, if granted, will mean that the buyer of the business must refurnish and re-equip the establishment, which, more often than not, will be found advantageous from several viewpoints.

Another detail of importance is the lease of the premises, where these are rented; how long it has to run before expiration, whether it is renewable, and what rental, and what conditions it contains as to repairs, etc. With this, of course, the physical conditions of the establishment should be seen to, whether the place will need expenditure for repairs, etc. One of the usual conditions in a lease is that the premises must be left in good and tenantable repair at its termination. It may happen at the expiration of a lease that it cannot be renewed, or, if it can, only at an increased rental. Still, the tenant has to leave the place in good repair, although he may not have been in occupation for more than a year or two, while the dilapidations may have been going on from the time the lease was first granted. The new tenant may also have to reinstate portions that may have been removed when fitting up the place for photography, and this is sometimes a very costly matter.

A feature is frequently made in the

sale of a business of the number of negatives in stock. The prospective purchaser will do well to see from the books what they have produced in orders for duplicates during the previous year or so, for it should be kept in mind that old negatives are not the same valuable asset that they were in the past, for at the present time people rather prefer to have fresh sittings in up-to-date styles than order from old negatives.

In many businesses, where transient patronage makes up a large part of the year's trade, negatives more than a year or two old are of little or no value. On the other hand, it may happen, because of the character of the clientele of the studio or some peculiar feature of the locality and the business, that the stock of negatives may hold profitable possibilities for business.

Where copyright subjects are included in this stock, it should not be overlooked that the copyrights must be transferred separately and individually from the original owner to the new purchaser. It is worth remembering, also, that a big stock of negatives badly numbered and registered is likely to prove a source of worry and trouble rather than of profit.

In the majority of cases, the sale of a small photographic business means the retirement or removal of the original owner and the conveyance to the purchaser of the premises, stock in trade and fixtures, together with the right to do business in place of the former owner. But when an old established business is in question, possessing a good reputation, a well-known name, and a widespread connection in its locality, the value of the goodwill is an important detail of the sale and brings up some puzzling problems.

The goodwill of a business has been defined as giving the purchaser:

1. The right to carry on business at the same place as that at which it was formerly conducted.

2. The right to use the old name under which the business was established, and to represent himself as the legitimate successor of the former proprietor.

3. The exclusive or limited right to continue the business under that name, and to enjoy the benefits of the trade connection thus transferred without interference.

The third clause usually constitutes the chief difficulty. It should be properly safeguarded by a definite agreement, that the person selling the business will not compete, either directly as the owner of another studio, or indirectly as manager or employee of another studio, within certain limits of locality and time. This is essential because the value of the goodwill of a photographic business, like the value of a doctor's practice, is so largely dependent on the personality of the man himself.

The second clause covers the point of greatest importance, since it virtually secures to the new purchaser something of a definite value. But no general rule can be given by which one may fix this value in an individual case. Ordinarily, one might venture the opinion that the goodwill of a business with the right to continue it under an established name as successor would be worth two years' net profits of the business. But in some cases this estimate will be too high and in others ridiculously low. To the amount asked for the goodwill, of course, must be added the value of the stock in trade, fixtures, negatives, and so on, at valuation.

Where the business to be purchased is of sufficient size and importance, the aid of an attorney should be sought, and the books of the concern should be examined by an accountant. This will add to the cost of the business, but is an expenditure well worth its cost, since it may disclose circumstances and conditions which will materially reduce the amount asked for the business, or even show that the proposed purchase is not advisable.

PHOTOGRAPHIC CHEMICALS AND HOW TO KEEP THEM (SOLIDS AND SOLUTIONS).

BY CHAPMAN JONES, F.R.P.S., F.I.C., F.C.S.

THE storing of substances to the best advantage is not always a simple matter. The chief of the possibillties of deterioration that have to be guarded against in each case, according to circumstances, are the action of the oxygen, the carbonic acid, and the moisture of the air, the action of the material of the vessel that contains the substance, and the volatilization or decomposition of the substance. In the following suggestions the needs of photographers only are considered.

The liquid acids, sulphuric, hydrochloric, nitric, and acetic, should be kept in glass-stoppered bottles, and hydrochoric and nitric acids should not be exposed unduly to light, for if they are, they will suffer slight decomposition.

When considerably diluted, as the hydrochloric acid used for washing platinum prints, and acetic acid as used to remove the ferrous oxalate solution from bromide prints, when that developer is used, these acids may be quite well kept in corked bottles.

The solid acids, citric, and tartaric, may be kept almost anyhow; it is only a matter of keeping them clean. Pill boxes may be used if preferred Solutions of them should not be stocked for more than a few days, as they are liable to get mouldy.

Ammonia must be kept in a stoppered bottle, and it is well to dilute it as much as convenient as soon as obtained, as the more dilute ammonia loses its gas more slowly than the stronger. It is well to use it from a small bottle, opening the stock bottle only to fill the other, that the loss of ammonia may be lessened.

Caustic potash and soda when solid may be stored in almost any vessel that excludes air, corked or stoppered bottles, etc., but if the vessel is to be often opened, bottles with india-rubber stoppers are convenient. As they readily absorb moisture and carbonic acid from the air, the perfect closing of the vessel is most important; and glass stoppers are not desirable, because the stopper is almost sure to become firmly fixed if a few specks get between it and the neck of the bottle.

Solutions of caustic potash and soda should be kept in bottles with india-rubber stoppers, as they corrode corks and fix glass stoppers, and deteriorate rapidly if not kept from the air. The glass is corroded—old solutions are therefore not reliable.

Potassium, sodium, and ammonium carbonates must be kept from the air, otherwise the first will take up water, crystals of sodium carbonate will lose water, and ammonium carbonate will decompose. Well corked bottles will suffice.

Solutions of potassium and sodium carbonate should be kept in bottles with india-rubber stoppers, as corks would be liable to be too much softened by them, and glass stoppers would be liable to get fixed. These solutions attack the glass, and a flakey sediment may be produced, which must be carefully filtered off.

Solutions of ammonium carbonate should be kept in glass-stoppered bottles, and care should be taken that the opaque coating of the lumps is scraped off, and only the translucent part taken for preparing the solution. Hot water should not be used.

Tribasic sodium phosphate it is well to treat as is advised for caustic potash and soda.

Pyrogallic acid, metol, eikonogen, amidol, hydroquinone, ortol, and other solid developing agents, may well be kept in corked bottles as they are purchased.

Prepared developing solutions, if concentrated, should be preserved in bottles closen with india-rubber stoppers. If diluted sufficiently for use, common corks may be used, especially if the solution is not to be preserved very long, and corks may serve well in other cases, too, but india-rubber stoppers are more certain. Glass stoppers are liable to stick if they remain long unmoved. If the developer is kept in two solutions, it is the solution that contains the alkali that will be liable to fix a glass stopper.

"Hypo," either when solid or in solution, needs no very special care. A "Winchester quart" is an excellent bottle for the solution, and it should always be prepared at least a day before it is used—it will keep good for months.

Sodium sulphite solid may be kept in well-closed bottles of any kind. Bottles containing its solution should be closed with india-rubber stoppers, and will then keep in excellent condition for many months.

Sodium and potassium sulphides must be very carefully kept from the air. A stock solution should be kept in a bottle with an india-rubber stopper. A dilute solution should not be preserved at all.

Ammonium sulphide keeps well in glass-stoppered bottles; corks should not be used.

Silver, platinum, and gold salts, and it is well to add uranium salts, too, should always be preserved in glass-stoppered bottles whether in solid form or in solution, and it is well to use distilled water in preparing the solutions.

Ferric chloride, potassium cyanide, potassium iodide, cobalt salts, and ammonium sulphocyanide, should be preserved in well closed bottles. Ferric chloride in solution should be kept in a glass-stoppered bottle. Potassium cyanide should not be kept in solution for more than a few days, as it is liable to decompose.

Potassium ferricyanide, potassium ferric oxalate, potassium permanganate, ammonio-citrate of iron, and the persulphates, whether solid or in solution, should be kept in glass-stoppered bottles. These and ferric chloride should not be allowed to come into contact with organic substances like cork, and it is well not to expose these substances to a strong light. Potassium ferric oxalate should be kept in the dark.

Potassium oxalate, potassium bichromate, potassium bromide, copper sulphate, lead acetate, ferrous sulphate, mercuric chloride, and alum, may be kept almost anyhow; but ferrous sulphate is best dissolved when required, as it will not keep well in solution. It should be dissolved in cold water, either by the aid of a mortar and pestle, or by covering the crystals with water and filtering when the solution is saturated.

Hard water should generally be avoided, if possible, but especially in the case of oxalates and lead and silver salts. Expensive compounds, such as those of gold and platinum, should be dissolved in distilled water, in order to reduce the risk of the solution deteriorating. In general, all solutions should be clear. If a sediment has formed, the clear solution may perhaps be decanted off, or if necessary it should be filtered.

For extreme over-exposure use a few drops of a 10 per cent. solution of ammonium citrate as a restrainer.

Development on the surface, with an energetic developer, brings out detail; development below the surfaces gives density.

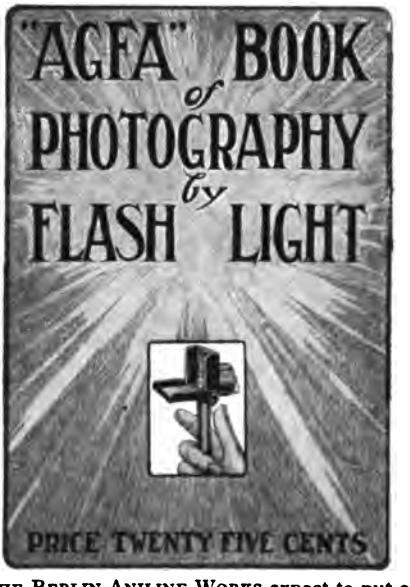
A slow-acting (dilute) developer penetrates the film, and is more likely to show halation effects than one which acts quickly.

TRADE NOTES.

As the darker days come on, the flashlight becomes more than ever the photographer's friend. Flash-powder is like fire, in that it is a good servant but a bad master. Like the revolver, it has a habit of going off when least expected. One of the safest and most efficient flash-lamps on the market is the Spred-Lite. A long, broad tin pan to hold the powder, a spring-trigger release to fire the cap, and a handle to hold the lamp at a safe distance, complete the outfit. With his finger at the end of the chain, or wire-trigger release, and the powder container elevated above the danger line, the operator can concentrate his attention on the subject, and at the right moment produce, by the pressure of his finger, an instantaneous flash that will get the expression every time. The Spred-Lite comes in six sizes, from the 12-inch pan to the heavy professional size, with the pan in three sections and with two reflector-holders. Illustrated circulars describing these lamps and giving prices and particulars will be mailed on request by G. GENNERT, 24 E. 13th St., New York.

So great has been the demand for the new double anastigmat "Eurynar," manufactured by the Optical Works of Rodenstock, at Munich, Germany, that it has been impossible for the European and American agent to secure these objectives from the works in sufficient numbers, especially in the more popular sizes and series. The "Eurynar" has undoubtedly exceeded all expectations as a successful introductory product of the Rodenstock Works in America. The new catalogue will be off press November 1, and contains handsome and interesting portrait and high-speed illustrations, reproductions from original photographs taken with the "Eurynar" by American photographers. The new catalogue contains also numerous testimonials from prominent photographers throughout the country. It may be well to add that the American agents, JAS. FRANK & SONS, of Augusta, Ga., are entitled to much credit for introducing in this country photographic objectives of high quality at foreign prices.

IN carrying a hand camera on your country jaunts how often have you wished that it could be carried somewhere else than in your hand when not in use. It's like carrying your hat in your hand—always in the way. How would you like a camera that was no larger than a pack of cards and that would fit snugly into your vest pocket? In the Goerz Vest Pocket Tenax Camera you have what the name implies—a camera for the vest pocket and no larger than a pack of cards. Notwithstanding its small size and wonderful compactness, it is a thoroughly practical and complete camera, taking pictures $1\frac{3}{4}'' \times 2\frac{3}{8}''$, which are easily enlarged to 5 x 7 on a Goerz V.P.T. enlarger. Fitted with a Dagor or Syntor lens, sharp negatives, the foundation of perfect enlargements are assured. There is a view-finder, and the shutter works at a half second up to one-hundredth. When opened, the camera is at sharp focus for all objects at infinity, but with a focussing dial objects can be sharply focussed down to five feet. It is a thoroughly dependable camera, with the advantage of portability. You can take it anywhere and everywhere and are always ready for anything that comes along. The C. P. GOERZ AMERICAN OPTICAL COMPANY will be glad to send you full particulars on request.



THE BERLIN ANILINE WORKS expect to put out another book very shorty, to be called the *Agfa Book of Photography by Flashlight*, on similar lines to the *Agfa Formulæ Book*. This new book will be forwarded upon receipt of the label from a package of Agfa Blitzlicht (flashlight powder) and ten cents in coin or stamps. Send to the BERLIN ANILINE WORKS, 213–215 Water St., New York, N. Y., and a copy will be forwarded to you as soon as published.

THE AUTOTYPE CO., manufacturers of the Autotype Carbon Tissues, for which George Murphy, Inc., New York, is the sole American agent, have just issued a new revised price-list of Autotype Carbon Tissues, with very complete and simple instructions for working this most beautiful printing process. Its choice of color—over forty tints to select from—its absolute permanency, and its great adaptability, should make it a conspicuous favorite in every studio. GEO. MURPHY, INC., will be glad to mail price-list and working instructions on request.

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EDITOR'S TABLE.

IN the death of Gustine L. Hurd, of Providence, R. I., which took place October 1, professional photography has lost one of its landmarks. Mr. Hurd conducted a studio in Providence for over fifty years, and only retired from active business some few years ago. He was a man of genial character and was universally respected by all who knew him, and that number was large. He was one of the first to realize the possibilities of photography from an artistic standpoint, and being of an artistic temperament, his work always showed great refinement in composition and finish. He did considerable illustrative work, and many of his studies were published. He also, at one time, contributed many articles to the photographic magazines.

THE most important photographic exhibition of recent years to be held in this country will open on November 1, at the Albright Art Gallery, Buffalo, N. Y., under the auspices of the Buffalo Fine Arts Academy. In our next issue we will print a criticism of the portrait section from the pen of Sadakichi Hartmann (Sidney Allan).

AT the recent convention of the Photographers' Association of Kansas the following officers were elected: President, R. C. Nelson, of Hastings; First Vice, W. S. Soper, of Nebraska City; Second Vice, W. Thorn, of York; Secretary, A. Anderson, of Wahoo; Treasurer, R. Roszell, of Beatrice.

THE following appreciation of the MAGAZINE from a subscriber in New Zealand is only one of the many encouraging letters we have been receiving lately:

WANGANUI, NEW ZEALAND, July 16, 1910.

Editor, WILSON'S PHOTOGRAPHIC MAGAZINE, *New York:*

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Yours truly,
(Signed.) F—— J. D——.

MR. F. E. IVES, the well-known color photography expert, has just perfected a new color camera that yields a glass-mounted transparency, or lantern slide, that is truer to nature than by any other process. The negatives are made with a single exposure, on a "plate pack" contained in a single plate-holder, developed in the ordinary way, and can be used to make any number of color transparencies at any time. Color prints can be made on paper by the pinatype and other processes, but a simpler and more reliable process for prints on paper is being sought. Meanwhile the glass transparencies are easily and quickly made and are the most satisfactory color photographs we have yet seen.

THE MILTON-BRADLEY CO., of Springfield, Mass., have just issued an extremely handsome souvenir book in commemoration of their fiftieth anniversary. It is a brief sketch of the career of Milton Bradley and the growth of the institution which he founded. Beginning in a very small way, with the making of lithographed games, the business has grown under Mr. Bradley's direction until it is today the largest concern in the world manufacturing kindergarten and school materials, and through whose influence the kindergarten idea has spread throughout the civilized world. In the photographic world the Milton-Bradley name is known in connection with the print trimmers found in almost every studio, and like every other product of the Milton-Bradley, they have the reputation for being the best of their kind. The book is a record of the wonderful progress of one man's ideas, backed by perseverance and integrity.

THE photographers of the Twin Cities—St. Paul and Minneapolis—are already making their plans for making the 1911 convention at St. Paul a big success, and have subscribed $1000 to the Entertainment Fund. With so much enthusiasm and so much time ahead, the prospects for a record convention are very bright.

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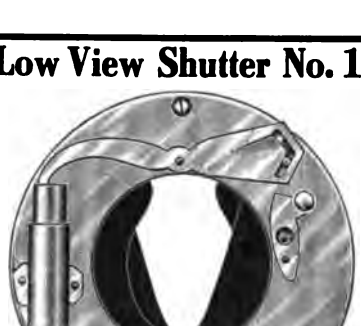

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Paderewski

By Arnold Genthe, San Francisco

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. XLVII DECEMBER, 1910 No. 648

WHAT IS THE MATTER WITH KANSAS?

It is a question that has often been asked. We are impelled to ask it again by the receipt of an "Open Letter to the Craft," by the President of the Kansas Photographers' Association.

The letter opens with the statement that "no Kansas photographers' convention in the past ten years has been the success that was hoped for. This year we had the spectacle of sixty-four photographers, out of seven hundred in the State, attending our recent convention."

Sixty-four out of seven hundred! Not 10 per cent. of the photographers of the State of Kansas, were interested in their State Convention.

All the printed matter, all the appeals, all the time and trouble of the president and executive officers in their endeavors to make a successful convention, could only secure an attendance of some sixty-four out of seven hundred. There is something rotten in the State of Denmark.

Nor is Kansas the only State that suffers from such apathy. With very few exceptions, every photographic association in the Union is in much the same condition as the Kansas Association. Even the National Association, while showing a steady improvement in attendance during the last few years, is not very much ahead of Kansas in its proportion of members to photographers. The New York society, one of the most vigorous and up-to-date photographic societies, cannot induce more than 25 per cent. of the photographers of the State to become interested in convention matters.

There must be something missing in the average photographer's make-up, otherwise he would be less indifferent to his own welfare. Of course, he figures out that he can best improve his business by staying at home and sticking to it. For awhile he may succeed on that plan. But, union is strength in photography, as in every other profession. Every man can improve his methods by seeing the other man's. Every photographer that helps the other fellow is improving and elevating the profession to which they both belong.

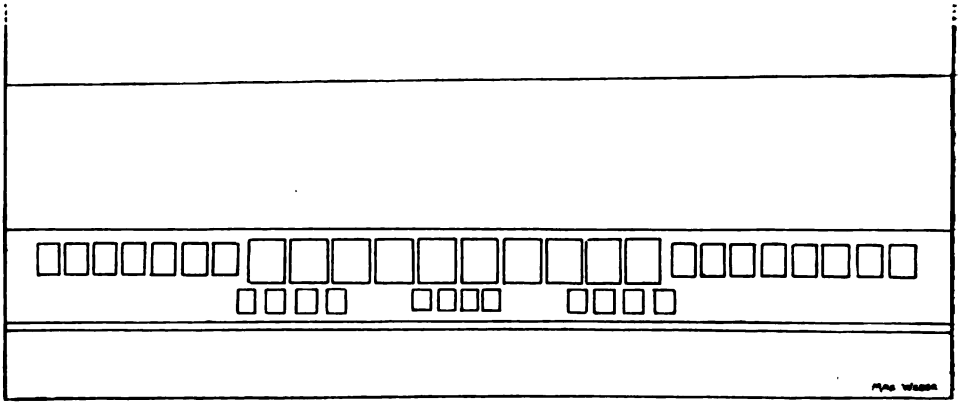
The most serious problem facing presidents of Associations is the problem of awaking more interest. Good programmes are arranged and much work is done, but the cost per head in time and money is altogether out of proportion to the results obtained.

Association officers are usually hard workers, and are invariably overworked. What is needed most is more coöperation on the part of the individual members of Associations. They should be induced to do their share in the work. They could, at least, induce their fellow photographers to join the Association.

PORTRAITURE AT THE BUFFALO EXHIBITION.

BY SIDNEY ALLAN

It is hardly necessary for me to say that the exhibition of the Photo Secession at the Albright Art Gallery in Buffalo was the most complete and comprehensive one ever held in this country. I believe that was understood from the very start. When it comes to a display of pictorialism and the true artistic qualities of prints, it is Alfred Stieglitz who can absolutely be relied upon. Exhibitions arranged or supervised by him are always artistic and instructive.



The hanging alone in this exhibition was well worth a trip to Buffalo. The entire art gallery was put at the disposal of the Photo Secession, which was an unusual privilege (to my knowledge it has never occurred before). The rooms are large and of fine proportions. The walls were specially decorated for this exhibition. The majorty of prints were mounted on large, light mats, against a dull green background of taffeta, masked with cheesecloth. The upper two-thirds part of the walls were bluish gray and a black or gray moulding divided the two colors. The exhibits were arranged in different groups and were all hung in single rows; only in few instances there were two rows. The spacing of the prints was a balancing of oblong rectangulars. It was the space between the pictures that produced the effect. The harmonious result, furthermore, was due to a consideration of "color." Each print has a certain degree of tonality, a certain tint, which furnishes the keynote of the tonal composition; and each exhibitor's work was placed in such a way that the light and dark tonalities balanced each other. Max Weber, a New York artist, who represents the most modern phase in the evolution of painting, and who has an exceptional faculty for interior architecture, was largely responsible for the beautiful hanging and grouping of the pictures. To hang a wall with thirty-seven red prints on ordinary white mounts (as was the case with David Octavius Hill's calatypes), and to do it in such a way that it looked beautiful, was a difficult task indeed.

It was done as shown in diagram (specially drawn for Wilson's Magazine by the artist), and solved the problem in a most satisfactory manner. And the way in which he arranged Clarence H. White's work, some thirty prints, all by themselves in one room, was perfec-

tion itself. Very dark and light prints were placed in such a manner that not only did they not interfere with each other, but that they supplemented each other and produced a most pleasing effect to the eye. That is the way a reception should look, I thought—simple, elegant, without a single false note. Photographers should have come from far and near to study this room. It was an object-lesson and the chance of a lifetime.

There were about 600 prints on exhibition, of which 220 were by foreign pictorialists and 100 by contributors to the Open Section. That made 280 for the American Secessionists—not so much after all.

Portraiture was rather sparingly represented—I mean straightforward portraiture as most of the professionals understand the term. It was largely on a decorative order. The picturesque elements were emphasized, and many of the so-called portraits were either figure studies, decorative arrangements, or experiments in lighting or space arrangement.

Of course, there was the work of Hill, who championed pictorialism as early as the forties of last century. His prints were extremely interesting; they depicted personalities in a simple, realistic manner and yet were not deficient in pictorial charm. It is difficult to say how much the latter is due to the quaint costumes of that period. And the process itself (like the daguerreotype) had a flattening tendency; it accentuated lines and simplified planes. These portraits are really as good as any that are made today. Hill knew how to pose people and to bring out their most salient characteristics. Some of the faces and attitudes still fascinate us, although the people he photographed are long dead.

A very interesting group was sent by George H. Seeley, of Stockbridge, Mass.—large gum prints, depicting studio effects of draped female figures, about one-third life size. They were of interest to the professional for one particular quality—they had carrying power. You could go twenty or thirty feet away from them, and they still produced a pleasant sensation of shapes. Seeley is a master of contrast and space arrangement, and he emphasizes these qualities by a peculiar breadth of treatment. Not the same can be said of Steichen's work. He also showed large exhibition prints of his well-known portraits of Bernard Shaw, Rodin, Pierpont Morgan, Taft, Roosevelt, Lenbach, Strauss, Maeterlinck, etc. His portraits at a distance lacked definition. They looked merely like a dark surface with a few white spots in it. On the other hand, if you went close up to the picture, they steadily increased in interest. These two exhibits should have taught every photographer that large portraits are possible only when special stress is laid upon the division of black and white masses. A print may be very beautiful and yet stand no enlargement. Steichen's prints are much more satisfactory in ordinary portfolio size.

As interpretations of character, Steichen's portraits are masterly. There is a peculiar mentality behind his work. One may not always agree with his conception of a person's character (for instance, of his Bernard Shaw or Lenbach), but one cannot deny that he has a distinct conception (which is rare in photographic portraiture), and he knows how to represent it in an effective, if not always highly artistic, manner.

His recent portrait of Lady Hamilton is particularly interesting. The full-length figure is placed directly in the centre and occupies only one-half of the upright length of the picture. Her dark form is posed against the wall of some large room. The upper half of the picture, a tapestry effect, is kept dark, while

there is a brilliant light effect on both sides of the figure. But it is impossible to convey the composition of a picture by words, and although I would like to talk about Paul B. Haviland's eccentric compositions, Alice Boughton's "Gorki," Baron de Meyer's powerful portraiture of women, and several exquisite prints by Clarence H. White, I must refrain from the pleasure. I will devote the rest of the article to the general trend of the work. As I have said at the start, they accentuate the pictorial side too much. Not that a picture could be *too* pictorial, but the picturesque features should be balanced by character interpretation, which is the main object of taking a portrait.

Steichen is an excellent character interpreter. The crouching attitude and the sly smile of his Bernard Shaw suggests the star jester of English literature. Coburn's portrait of Shaw, on the other hand, is a sober characterization. It is good in quality, but not much more than a likeness. Now, what do people like best? I am almost certain that nine out of ten would prefer Steichen's version. But he individualizes too much; it is really no longer a faithful rendering of facts, but what Steichen thinks of the man. This is a dangerous ground to work upon, and I think comparatively few will succeed in this style of portraiture. Besides, it can only be applied to celebrities or particularly interesting types. The sitters for Steichen's portraits were all persons of prominence.

But to return to the pictorial qualities. Even he is at times too much interested in some light experiment or some problem of composition. As soon as this happens the sitter naturally suffers. I found that this was the case of many of the portraits. They were beautiful to look at, but were impossible to professional portraiture. Impressionistic arrangements, as I noticed in some portrait groups of Frank Reed, for instance, are no longer portraiture. They treat the subject as a figure painter might do, with the difference that the figure painter would not call his group a portrait or try to pass it for a portrait under the disguise of some title.

The photographer, however, could have learnt much from the various methods of lighting. The pictorialists continually strive for nice effects. Baron de Meyer and Clarence H. White in particular show a marked preference for the technical problems of light. But I personally prefer the simple tonalities, without much contrast, as we see them in Craig Annan's portraiture. His portraits are exceedingly simple, clear in definition, elegant in finish, and delightful in their tonal qualities. His portraits of an old lady and of a woman with two buckles, one on her hat and the other on her belt, were the best in the exhibition. They are true photographs. They do not imitate painting in composition nor in treatment. Craig Annan handles his subjects in a simple, dignified manner; he preserves the likeness and yet succeeds in making his prints look artistic.

There were many things to learn from the exhibition, but this is about all I can convey without analyzing each print in detail, and that is not possible, as it can only be done with accompanying illustrations.

Hill's and Craig Annan's portraits appealed most to me. Of course, every student of portraiture has, no doubt, his preferences, and is particularly interested in one phase or another. But what we want in professional portraiture is not so much picturesque and decorative excellence as faithful characterization plus technical elegance and good composition.

Very large aperture lenses are more apt to fog plates by interior camera reflections than those with smaller apertures.

Official Petition

The Photographers' Association of America

IN EXECUTIVE SESSION

Milwaukee, Wis.,

July 15, 1910

To the Honorable Mayor and Board of Aldermen of the Common Council of the City of .....

Greeting:

The Professional Photographers of the United States and Canada, in convention assembled, hereby petition your Honorable body, to pass an ordinance placing a license upon all itinerant, transient and non-taxpaying photographers and picture agents; thus creating a revenue for your city, and at the same time protecting your home photographers, who are tax payers, from ruinous and demoralizing competition.

THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA

EXECUTIVE BOARD

A. T. Proctor
Geo. W. Harris
Benj. Lanzner
J. H. C. Vanoff
Leonard Alfred Boyer

To the Honorable Mayor
and Common Council
of the City of .....

Gentlemen:

The above meets with our hearty approval, and it is our earnest desire that an ordinance governing same be passed.

PHOTOGRAPHERS OF
THE CITY OF .....

.....
.....
.....
.....
.....

THIS PETITION PREPARED AND PRESENTED BY GEO. GRAHAM HOLLOWAY EX-PRES. TERRE HAUTE

THE "LICENSE" PETITION OF THE P. A. OF A.

At the National Convention of the Photographers' Association of America at Milwaukee the question of licensing itinerant photographers was taken up by the congress, and Mr. G. G. Holloway, of Terre Haute, Ind., submitted the petition printed in this issue, which was finally adopted as the official form by a vote of the members of the Association.

Copies of the petition can be obtained from L. A. Dozer, Bucyrus, Ohio, the treasurer of the P. A. of A., only by a member of a State Association which is affiliated with the National, or by a member of the National itself. The member obtaining the petition should then get as many local photographers as possible to sign the petition, which, when fully signed, should then be handed to the local mayor. Attention should be drawn to the fact that the petition bears the official sanction of the National Association and is signed by its officers.

It is the hope of the National Association that this official petition will find immediate use. There is plenty of precedent for such local ordinances placing a license on itinerant photographers and picture agents, and if photographers will make use of this form of petition, taking care that it is signed by a majority of the local photographers, there is reason to believe that a severe check will be placed on the incursions of the kidnapper, which will, of course, be to the ultimate benefit of the regular professional.

Remember, applications for copies of this petition, ready for use, can be obtained from Mr. Dozer, but only by members in good standing of the P. A. of A., or of affiliated societies. If you do not know whether your society is affiliated, write to your State secretary. If you are not a member, bring this to the attention of some man who is.

PICTORIAL PHOTOGRAPHY IN AUSTRALIA.

The progress of artistic photography in Australia is a hard matter to gauge, and for quite a variety of reasons is most liable to be underestimated and maligned by faint praise. Our camera workers are not yet craft-conscious, and are therefore not given to linking themselves together in societies and clubs as in the older and more fraternal world. This continent is a lonely land pioneered by lonely people who lead isolated lives, and in whose children the spirit of going alone is still strong. Our great cities are few and far apart, and the sundering miles prevent that friendly intercourse that leads to numerous exhibitions. In fact, with us, exhibitions are occasional occurrences instead of regular functions. Then, again, we have practically no magazine literature to show our pictorial work, and what illustrated papers we have give practically no encouragement to the pictorial side of the craft. Lucky snapshots of street incidents, prize-fights, and studies of the prize pumpkins at the agricultural shows are what the editors of the "illustrateds" love, and for which they are prepared to pay as high as a whole guinea. But pictorial studies, worked out with care and taste in accordance with the rules of composition, they will not have at any price; or, if they do, the price is generally five shillings, and then the acceptance is

looked upon as a favor. So, naturally, when one is asked to write on the progress of pictorial photography in Australia, he is inclined to reply: "Dunno!"

For, however artistic our pictorial workers may be, they have almost no channel of expression. Two of the great stockhouses run monthly magazines devoted to photography, and these two publications are practically the only local chance the pictorial worker has to appear before the public. And, naturally, their space is severely limited. Still, they do what they can.

Naturally, under such depressing conditions the Australian pictorial workers are men who practise the craft for the love of the artistic. They seek neither reward nor fame, but are content to go on expressing the beauty they see around them, decorating the homes of themselves and their friends. So, if under these circumstances, I cannot give a very complete *résumé* of picturial progress in Australia, I hope to be forgiven.

And yet, withal, we are a photographic people. There are probably more cameras in proportion to population than anywhere else on earth. You see the instrument everywhere. In the cities, on the farms and great estates along the costal belt, on the blistered, mirage-haunted plains of the far interior, cameras are an everyday sight. The man in the railway car, the woman in the buggy at the wayside station, and the dour, tanned engineer of the shambling camel train, all have cameras, and use them. The writer once drove forty miles over the district where it is proposed to place Australia's national capital, and half-way met a man on horseback who was riding some twenty-six miles to "take a nice little bit" he had seen a week previously when fishing without his camera. There were only three people within an area of about 400 square miles, and two of them had cameras. In fact, the writer had two.

Naturally, among such an army, and one possessed with such enthusiasm, there are bound to be many pictorial workers. But they are a retiring people, and very often the first intimation we have that a nearby neighbor is a worker is gathered from a magazine or illustrated paper which contains a picture over his name. This is the result of the spirit of going alone. On paper there are fifty-six photographic societies in Australia. But a very large proportion of these should not exist even on paper. They do, though, and are immortal for the same reason as the Greek gods, that, having never lived, they can never die. Others of them do not pretend to anything more than the provision of a dark room and a smoke night once a month or so. Very few of them have any real life or make any serious attempt to foster photography, pictorial or otherwise. Others are making a gallant struggle to do something, struggling along from one financial quagmire to another. In the capitals of each State of the Commonwealth, however, there are flourishing societies, although even in the great cities the workers do not support the societies and clubs as they should. The advantage of having a dark room in the house and working at home appeals to so many and makes them overlook the fact that the least important function of a photo society or camera club is to provide a dark room and enlarging lantern. But the times are changing, and the year that has just passed is said to have been marked by an all-round increase in membership throughout the continent. The societies are now doing excellent work in the way of training the younger members in the possibilities of their craft, and the result is good. The "camera fiend" who used to load up over night and rise early on the holiday morning to "have a shot at something," shoot everything within range, and then hand the plates or films to someone else to be

developed, and finished up the tragedy by printing forty-two gaslight prints in a single night, is turning to nobler things. He is realizing, through the general spread of photographic education, that one good picture in a fortnight is better to look at on the wall and to live with than forty-two sudden flashes stowed away in a drawer unmounted and unwanted. For this change the increase in club memberhip is largely responsible. Club members have the advantage of a steady stream of literature, whereas the isolated worker—in the city, at any rate—gets only occasional drops. The spread of this literature is bringing the younger members in view of the good work done abroad and in their own societies. The imagination has been fired and the result is much talk. The circle has widened, the enthusiasm grown, and now there is talk of a great National exhibition at Sydney this year—a real all-Australian exhibition—with loan collections from England and America and exhibits from all Australasia. If it materializes—and there is no reason why it should not—it will mark the beginning of a new era in Australian photography. Already some excellent "one-man shows" have been held in both Sydney and Melbourne by the societies of each city, in which splended work has been shown.

Our craftsmen work under many natural difficulties apart from those already enumerated. In some parts of the continent bromide printing is an impossibility, and P.O.P. next to impossible, owing to the mineral elements in the water. In one portion of the Riverina District of N. S. W. all bromides after development are found to be streaked with Prussian blue, and after a time, in spite of fixing, the whole print turns a dirty faded yellow, with the blue bars holding out defiantly to the end. The distracted camerists have boiled the water, filtered it, and done everything short of distil it, but that blue is invincible. In some parts of Queensland gelatine papers are just impossible, and the worker there has to stick to collodion papers. In other parts, water is too scarce and costly to permit of developing and printing being carried out. But, all the same, the people take photoggraphs, and store up the films and plates till they can indulge in a holiday. Then they hie them to some elysian spot where a man can have a bath night and morning, yet keep out of the bankruptcy court, and have a glorious fortnight developing and printing, then back to the wilderness.

Coming down to consideration of the actual work done as far as it can be discovered under the difficult circumstances, pictorial work is distinctly on the increase. And the home of it seems to be the small country town. There time hangs heavily, and the camera worker turns to his craft to kill it. It is astonishing what a number of people in Australia are turning out beautiful pictures, which might pass for engravings by real masters, with the plain salted paper. Carbon is growing steadily in popularity, and will do so faster yet, as it is not subject to the vagaries of our inland water as are the bromide and print-out papers. Gum bichromate threatened for a time to have some vogue in the cities, but the arrival of the oil process would appear to have killed it. Platinotype is but rarely used; but the self-toning papers are doing splendidly, and some very charming work is being done with that much-despised medium.

The conditions of Australia are apt to hamper the pictorial worker considerably. It is a dry land and dusty—and dust is perdition to photographers. For the greater part of the year our skies are bald and hard as metal, devoid of clouds or obscured by a haze of smoke or drifting dust through which the sun shines with a red or yellow glare. The result is that straight prints are bald and hard,

and, with the exception of working in clouds, combination printing would appear to be a little-practised art in Australia. But perseverance conquers everything, and the men who are doing good pictorial work have managed to escape the terrors of the brazen sky, turned the drifting dust to use, and made it give their studies a wildness of atmosphere that enhances the value of their work. But if ever there is a distinctive Australian School of Photography, it will probably be expressed best in its night pictures. For when the rain has swept the continent, and the dust is held down by the luxuriant burst of verdure, outback the nights are very lovely. The landscape, always park-like where there are trees, becomes elysian in its beauty. In the clarified atmosphere the moonlight is intense enough to give with twenty minutes of exposure pictures full of delicate, suggested detail with all the charm of the night atmosphere added. And our workers are beginning to find it out.

But that is of the future. The best of the pictorial work that has come under the writer's notice belongs to the genre class. Studies of children seem to be a favorite expression, and the number coming forward is very large. Ours is a poetical population, and probably produces more verse per head than any other country. And camera people infected with it seem to be very numerous, for quite a number of the pictures before us have been designed and composed especially to illustrate the favorite lines of the craftsman. This was the beginning of Australian artistic effort, and remains its chief stay among the men who are doing most of the pictorial work —that is, the dwellers in the small country towns.

Hitherto we have dwelt upon the disadvantages of the camera workers in Australia. But there are compensations. For instance, our wonderful variety of eucalyptus trees all lend themselves to picture-making. Nothing appears so soft and feathery as a line of eucalyptus along the skyline, and our cypress pines compose beutifully. Our gnarled mulgas are picturesquely horrible, and the palms lend themselves to very artistic treatment in night pictures. The result is that the smallest patch of "scrub" has almost infinite possibilities about it, and the most unpromising landscapes are laden with potential pictures. The undiscovered country of the landscape artist is the coast of North Queensland, where, among the interminable islands of the Inside Passage, the loveliness of tropic Australia waits the coming of the autochromist. So it can be safely said that we have started definitely on the up grade, and that we have a wealth of natural material that far outweighs our manifold disadvantages. How long it will be before we commence to develop a distinctly Australian type of photography is impossible to guess. The indications are that we are about to enter upon a broader and fuller life in which the isolation of the past will be obliterated, and the healthy rivalry of the societies, which are increasing in numbers and influence, will have a stimulating effect by giving our artists opportunities to see the work of their contemporaries. —From *Photograms of the Year* 1910.

A lens can be fitted into a larger flange than its own by wrapping a piece of soft paper or tape around the lens-thread.

All lenses working at the same aperture are equally rapid.

The shorter the focal length of a lens, the greater the depth of definition or focus.

Dust, grease, or other dirt on the lens is a fruitful cause of fogged or fuzzy negatives.

A lens working at $f/6$ narrows down the limits within which sharp pictures are obtainable.

PHOTOGRAPHS OF AMERICANS BY AMERICANS.

[WE are indebted to Dr. George G. Rockwood, the veteran American photographer, who has photographed more great Americans than any photographer living, for a report of the following address, delivered by William M. Chase. In his letter to us Mr. Rockwood remarks: "It was only yesterday that I was examining a photograph of Henry B. Hyde—the stalwart, masculine, forceful American—made in Paris! He was emasculated, and looked like a sissy Boulevardier!"—ED. W. P. M.]

William M. Chase talked to members of the MacDowell Club and some of their friends at the clubrooms in the Metropolitan Opera House Building yesterday afternoon on "Portrait Painting, Ancient and Modern." Without setting out to do so, he made the strongest plea for the patronage of American portrait painters by Americans if Americans wish the best results in portraiture that has been had here in a long time.

He expressed himself, after his lifetime of study, as firmly of the opinion that the best results in portraiture were only obtained by artists painting their own people. It had been so in the past; it was so today, he said.

None knew, Mr. Chase said, where or by whom the first portrait was painted; but it had dawned upon people quite early that it would be well to try to make likenesses of those about them. He spoke of the early efforts in tempora colors with no construction, but very interesting none the less.

"Nor do I think," said he, "that it was vanity which led to the rapid growth of popularity of portraits. People realized that it would be desirable to have preserved the likenesses of those they loved and respected. The English were especially wise and fortunate in this respect. There is hardly a house of consequence which has not its family portraits. And they were painted mainly by their own artists.

"And what style the English put into their portraits! I do not mean fashions, my friends. A painter once asked Sargent what he regarded as the first or greatest requisite in portrait painting. He answered, style. Look at the portraits by the English artists, look at those by Velasquez and by Van Dyck, look at Sargent's, and you will see with what style they are endued. Another thing: I believe that great artists have always been at their best and greatest when painting portraits, and I make no exception even of Tintoretto or Raphael or Rubens.

"It has come upon me through much study, and I want to bring this clearly before you, that if people want the best portraits, they must be painted by an artist of their own number, their own people. It was so in the past; it is so today. A portrait must have character, and only the painter painting his own people, whom he understands, can give the best results. It has always been so. The Dutch painted the Dutch, the English the English, the Spanish the Spanish.

"There is scarcely an exception. Sargent is about the only one in my mind. It was fortunate for him that at the right season in his studies he went to France and worked under Carolus Duran, and more fortunate that he went to London. I believe, not less than that he studied Velasquez. He is the greatest living portrait painter, and when I look at his canvases I see not only Spanish and English, but American character in his wonderful work. Van Dyck was another exception in some degree.

"I make quite sure that in this I am absolutely right. And I am going to say

one thing more along this line—I know it is dangerous, but I know that it is right and ought to be said—it is this: I should not like to commission one whose life is on the boulevards to paint a portrait of an American wife, sister, or whom you will. I am not saying anything of their ability at painting those whom they know, their own people; I do say that the best American portraits must be painted by American artists.

"How well those older men knew how to make a picture when they were painting a portrait. Do you realize how many of those portraits we are buying over here? We like them as pictures, and properly enough. I feel sure that those persons who have looked intelligently at two notable exhibitions of portraits by older masters lately held in this city have not cared particularly to know who were the sitters. The portraits speak for themselves as pictures, masterly paintings done by artists who painted their own people, whom they knew."

OIL-PRINTING SIMPLIFIED.

Some Improved Methods for the Production of Pictures in the Oil-pigment Process.

Mr. W. L. G. Bennett contributes to *The Amateur Photographer* a new and very simple method of producing oil pigment pictures—a process as yet very little known to professionals. We reprint the article for the benefit of any of our readers who would like to try it.

The enormous popularity of the bromoil process for the production of pictorial effects with a photographic base, has caused the original oil-process to be somewhat overlooked by many workers. The only drawback to the process is that when a large picture is required a large negative must be made, but the result is always worth the extra trouble.

In any case, there is no doubt that both beginners and adepts would welcome any system which would shorten the various operations, leaving more time for the final details of personal control, which is the essence of the process.

Before proceeding further, it may be as well to enumerate the conditions requisite for the production of a good oil-print.

1. The gelatine film must be evenly sensitized with bichromate of potash, which must permeate the whole thickness of the film, and just reach the paper behind it. If only on the surface, the film will not unfrequently blister in subsequent operations. Although it will do no harm, it is not necessary for the paper to be saturated with the bichromate, as is the case when it is sensitized by total immersion.

2. The exposure must be fairly correct, but may easily be judged by continuing to print until the high light details are just visible.

3. The print must be soaked in water until it has absorbed the full amount that it is capable of. With thin papers (proceeding in the usual way) this may be done sufficiently to yield a good print in about one hour, but in all cases a great improvement will be effected by prolonging the soaking to anything up to twelve hours, or even more.

4. The print should be pigmented while the gelatine is in the abovementioned condition; any loss of

moisture, which takes place rapidly in a dry room, resulting in the pigment sticking where not required. It is therefore most important to complete the pigmenting as expeditiously as possible.

The object of this article is to show how all these operations may be performed in a much shorter time than by any method of working previously described.

I will begin by describing a method by which it is easy to evenly sensitize the paper to the needed depth. The first requisite is a saturated solution of potassium bichromate, *i. e.*, one in which some crystals always remain undissolved at the bottom of the bottle. This will be of sufficiently constant strength for our purpose, except in very cold weather, when the bottle should be slightly warmed and well shaken before pouring out any of the solution.

Of this solution, just before using, take two parts, and to it add one part wood alcohol, and stir well together. The mixture will be cloudy, due to part of the salt crystallizing out.

As for the paper to be used, that must be left to the choice of the reader, as I have no wish to advertise any maker's goods at the expense of the others. Any of the enormous variety of papers prepared with a coating of hard gelatine for double transfer in carbon printing will give equally good results.

Some single transfer papers will do, but the film is rather too leathery for the purpose, and though it may be softened into the right condition by longer immersion in the clearing bath, afterward to be described, it will very likely blister, and leave the paper in patches.

Lay a sheet of any of these papers film upward on a sheet of newspaper, take a large clump of absorbent cotton, about as big as a walnut for whole-plate size, and for other sizes in proportion, and so hold it in the right hand as to present a smooth rounded surface, without projecting bits that are likely to be separated from the rest.

Dip the cotton in the bichromate and alcohol mixture, and rub it quickly backward and forward over the whole of the paper, first in one direction and then crossways, until the paper presents an even yellow appearance of about the depth of a very ripe lemon. This is best done in a good light, so as to see whether or not the coating is even, but directly it is completed the paper should be pinned up by one corner to dry in a dark-room or cupboard.

If the air is dry the film may be ready for printing in about ten minutes. Passing the finger lightly over the surface is the best test, as the slightest moisture will instantly arrest the motion of the finger.

Printing should be continued until the details in the lightest parts are clearly visible. No details can be got to pigment with any method of working, which are not just perceptible in the bichromate image. The paper is nearly twice as rapid as P. O. P., and about one-third more rapid than platinotype with ordinary negatives. It also seems to be more sensitive than other papers to yellow light, so that with pyro-stained negatives its proportionate rapidity is greater still.

We must now make up a solution which will allow us to dispense with the long soaking mentioned previously.

Water	10 ounces.
Sulphuric acid	½ ounce.
Saturated solution of common alum	4½ ounces.

Mix in the order given. I think that it is justifiable to repeat the old warning against the disastrous effects of splashing this acid on to the face or eyes, as, although most readers will be aware of this, the matter is too serious to be left to chance. Those handling it frequently will

find it far wiser to dilute it, when first purchased, to one part in four of water. No great harm can be done with this mixture, and it can be used proportionately, that is, 2½ ounces of the mixture and only 8 of water, in the above formula.

Some of the solution should be placed in a dish, and the dry print immersed directly into it, and turned over once or twice, well rocking the dish, so as to be sure that the whole side of each of the paper is wetted.

With an average print the action will have gone far enough in three minutes, but with underexposure less, and with overexposure more, time should be given. After removal from solution about one minute's rinse in two or three changes of water is all that is required, and the print is then ready for pigmenting; *usually less than five minutes after leaving the printing frame.*

Pigmenting.

Of course, many readers will have already become expert in using the oil brushes, so may go on to pigment the print, treated as described above, in their own way. For these, I have no advice to offer, as they will very likely have acquired a slightly different way of applying the pigment to other workers, thus giving to their prints an individuality which is one of the charms of the process.

To readers, however, who are only just taking up oil-printing, and to all who wish to save time and trouble, I strongly recommend the use of a much larger brush than those usually sold for the purpose.

A New Brush.

Some time ago, just as an experiment, I purchased a circular brush, with a diameter of about five inches, on a convenient handle about a foot long, intended, I believe, for dusting furniture and picture frames.

It only cost one shilling, but with it I have pigmented an 8 by 10 print in ten minutes, with such perfect evenness and delicate texture that it is not to be distinguished from a good bromide print.

It is very difficult to describe the brush with sufficient accuracy to guide the reader when purchasing one. The bristles are about three inches long, and are just so stiff as to feel slightly prickly, but not unpleasantly so, if the brush is dabbed briskly on the cheek. I can think of no other way of describing the exact stiffness necessary, but, after a little experience of the oil process, no great difficulty will be found in judging whether a brush is suitable for the purpose or not.

This I find is the best brush with which to apply the pigment. The finer work and clearing up, etc., can be accomplished in the usual manner with the smaller fitch or hog-hair brushes.

Pigments.

As for pigments, there are many more or less suitable varieties to choose from. The ordinary kinds, used for oil-painting, are, as a rule, too soft for our purpose, but if a thin layer is smeared on a sheet of glass, and allowed to dry for some time, it will attain the required consistency.

I also advise beginning experiments with black, which seems to work more easily than other colors.

A thin layer of the pigment is rubbed over a sheet of clean glass—the back of an old half-plate negative will do well—and the large brush dabbed repeatedly on it, until all the hairs are tipped with the paint. Then dab it once or twice on a sheet of newspaper, so as to distribute the pigment more easily, and remove any too large particles that it

may have taken up. The print should be taken out of the water, laid on a sheet of glass, zinc, or other smooth surface, and dabbed gently with a damp rag or towel, until all surface moisture has been removed, as may be seen by looking at the paper obliquely.

Then dab lightly, but quickly, all over the paper, with the brush of pigment. It will adhere everwhere at first, but soon begin to leave the light parts, and the picture will appear. Of course, the brush will need to be frequently replenished with pigment from the glass.

REMBRANDT LIGHTING.

THE term "Rembrandt" lighting was applied by someone at some time who had a very incomplete idea of the special character of many of the portraits produced by one of the greatest of the world's painters. A picture may have a preponderance of shadow, the highlights being few and forcible, or it may have a preponderance of lighter tones with darker notes of emphasis. The greater number of Rembrandt's pictures are characterized by strong shadows, and small areas of brightly lit portions of the subject. The photographer when he speaks of a "Rembrandt" lighting too often thinks of a head turned side-face, with a strong light thrown on the profile, and the rest of the face and figure almost detail-less, a dark solid mass. This is precisely what a "Rembrandt" portrait should not be. Dividing the lightings of a "Rembrandt" character into three sub-headings, we may consider full or nearly full-face portraits with a strong illumination from the side, side or nearly side-face portraits, with the face looking more or less toward the source of illumination, and quite side-face portraits in which the whole of the face is in shadow, the profile being outlined only, this style of lighting being sometimes called "line lighting."

There are certain defects common to all these styles which unfortunately exist with only too great frequency. The tendency is to employ much too strong a light, with, as a natural consequence, too great a contrast in the subject. The high lights of the negative are thus fully exposed, and are very dense on development without the shadows being sufficiently exposed. Or, *per contra*, if the shadows are exposed the highlights are solarized and all proper modelling is lost. As a rule, even if the lighting is sufficiently soft in character, the negative is very much overdeveloped, and has harsh printing contrasts. Again, the face is usually turned toward a strong light, with the result that the reflexes in the eyes are too large, and need scraping down in the negative, a very critical piece of work, and one calculated to destroy proper expression. Further than this, the strength of the light causes the pupils to contract, and the actual expression is not so good as when the pupils are larger or more dilated.

Let us see, then, how these defects may be avoided and how the desired effects may be obtained with the greatest economy of time. Taking the full-face, or nearly the full-face, portrait first, we place the sitter in the normal position in the studio, and light the head so as to secure a nicely-rounded lighting with soft transparent shadows, keeping the reflexes equal in both eyes. Now place over the head, more toward the shadow side, an opaque head screen, watching carefully the result, which should be that of increasing the area of the shadows, and so conveying the effect of more forcible illumination of the head as a whole.

If the original lighting has any tendency to flatness, that is, if there was too much light admitted from top and side toward the front of the sitter, the blinds here must be closed. If the lighting is the normal 45 degrees from top and front, however, the opaque head screen should do all that is necessary in the way of increasing the area of shadow. Of course, a somewhat dark background will be used, and it may be pointed out that if the background is gradated, the dark portion coming against the light side of the head, and *vice versa*, the result is to accentuate the effect of contrast, to make the lights more forcible and the darks more rich, while at the same time the actual contrast is not increased, but is kept within the compass of the plate, and the shadow detail will be recorded before the highlights are overexposed. A moment's consideration will show the worker that this is the principle on which to work, for in the normal full-face lighting we have the high lights strong enough and the shadows dark enough. All that is needed for the production of the Rembrandt effect is to get a smaller area of light and a larger area of shadow, and this is most easily effected in the way suggested. It will be noticed that this method presupposes the ability to light a head well in what may be called the normal way, and, of course, also assumes that the lighting in the studio is properly under control, and that the studio is not flooded with light from every direction.

Two alternate methods may be given for obtaining this same effect, in each case starting with the normal full-face lighting as the basis. The one method is to turn the head a little further from the light, that is, more toward the three-quarter face position, and then move the camera further to the side, so as to obtain again a full-face view of the head. The second method consists in bringing the sitter nearer to the camera until the proper effect is secured, and then, of course, drawing the camera back also, so as to get the image on the ground glass of the proper size. An objection to both of these alternative methods is that the character of the lighting is more distinctly side-lighting, and this does not give so good a modelling, in some instances conveying a swollen appearance to the cheek or neck.

We may now proceed to the second type, the head photographed side-face looking toward the light. Again, the simplest method of procedure is to light a full-face portrait in the normal way, taking care that the reflex shows equally in both eyes, but only just in the eye on the shadow side of the head. Now without moving the sitter, wheel the camera round so that a side or nearly side-face view of the head is obtained, and it will be found that the effect of light and shade is almost if not quite satisfactory. It may be that the shadow will prove a trifle lacking in transparency, and should this be the case a reflector of gray calico may be placed as near the camera as possible so as to avoid any danger of cross lighting. If this reflector be a frame covered with canvas, papered white, the device originally adopted by Mr. Henry Van der Weyde may be used, a hole being cut in the reflector on a level with the camera, and the lens then pointed through this aperture. This method gives a soft illumination of the shadows with the risk of cross lighting reduced to the minimum. Of course, this method of obtaining side-face Rembrandts necessitates a studio of considerable width, and as this is by no means a general condition of things, it cannot be so often employed as might be desired. The following method, then, will be that most generally useful. Open about four feet of side light at the extreme end of the studio, the end occupied by the sitter, and about as much of the top light, taking care that the general

angle of illumination is 45 degrees. Avoid too low a side light, which is apt to glare into the sitter's eye, producing the excessive reflexes referred to, and avoid also too direct a top light, which causes the hair to be much too white. If the blinds cannot be arranged without excess of top light, a translucent head screen must be used to soften the lighting. Now place the sitter somewhat nearer to the camera end of the studio than the open glass, so that the lighting is from the side, but rather behind the sitter. On turning the head toward the glazed side of the studio it will be found that the eyes are not looking to the open glass, but at the contained portion of the window. Now, with the camera getting a side-face view of the sitter, and the reflector arranged so that the lens looks through it or just past its edge, a good Rembrandt lighting will be obtained.

We are now left to consider the line lighting, which is, perhaps, the least used of the three types. Only the most perfect and refined profiles will bear this treatment. The effect to be aimed at is a shadow filled with soft delicate detail, while more or less all round the head is a line only of light. On the hair the light may not be quite so pronounced. To produce this effect the light must be almost exactly behind the sitter, and as the background, if too large or too near, would cut off all the direct light, it becomes necessary to keep it well back from the head, and to use a back light in which top light predominates. Care will be needed to prevent light striking into the lens, and here, again, the reflector, through which the lens looks, will prove a valuable adjunct, for in addition to softly illuminating the shadows, if properly arranged it will prevent any light other than that from the subject reaching the lens. One of the causes of frequent failure when employing this method of lighting is the placing of the model too near to the light. A large dark background at a good distance and the sitter well in front of the light will give the most pleasant effects.

It may not be inappropriate to add a word or two on the development of plates exposed under the conditions considered. A pefect piece of lighting may be spoiled in its rendering if the plate is badly developed. The usual mistake is over-development. These Rembrandt lightings are almost invariably taken with dark backgrounds, and a negative so produced needs less development than one of a normal vignette head, against a light gray background. Either the normal developer may be used and the time of the development shortened by about 25 per cent., or the developer may be diluted by the addition of, say, half its bulk of water, and development carried on for about the normal time. In any case, prints should be carefully examined, and if there is any lack of gradation in the highest lights by the time the shadows are deep enough, it may be taken as an indication to soften the lighting; or, it that be sufficiently soft, to keep the negatives less strong in contrast by one or other of the methods indicated.

A good lens is wasted on a poor photographer.

The smaller the aperture, or the more nearly the lens approaches a pinhole, the greater becomes the depth of definition.

A dead black for lens mounts is made by adding fine vegetable black and a little turpentine to a strong solution of shellac in alcohol.

Perspective does not alter with variations in the focal lengths of lenses. It is the size of the picture, *i. e.*, the amount included, that alters.

A periscopic spectacle lens makes a fairly good landscape lens. It should be used with the concave side nearest the plate, and the stop in front.

By Arnold Genthe, San Francisco

The Sisters

By Arnold Genthe, San Francisco

Maxine Elliott

By Arnold Genthe San Francisco

By Arnold Genthe, San Francisco

James T. Archibald

War Correspondent

By Arnold Genthe, San Francisco

1. Young Girl
2. A Sculptor
3. Von Perfall
4. Herr Pallenberg

Illustrating Sidney Allan's Article

5. The Artist's Father
6. At the Window
7. Peasant Girl
8. The Artist's Mother

Illustrating Sidney Allan's Article

9. Peasant Girl
10. Parisienne
11. Frau Rossner Heine
12. Reading the Newspaper

Illustrating Sidney Allan's Article

MASTERS IN PORTRAITURE—WILHELM LEIBL.

BY SIDNEY ALLAN.

WILHELM LEIBL was one of the first German painters who painted realistically, as early as the seventies. He was best known for his angular and scrupulously accurate depictions of Bavarian peasants, but he also excelled in landscape, portraiture, and etching. German painting, on the whole, is too intellectual; that is, the artists are too anxious to express a thought, and they seldom reach the fluency and technical mastery of the French or Americans. Leibl was an exception; he could *paint*. He favored detail, but managed to keep it flat, and this breadth of small planes, peculiar to his style, was largely due to a strange perfection of draughtsmanship.

In his portraits he was more careless, and in many instances, as in Figs. 2 and 3, show the brushwork too conspicuously, while Figs. 4 and 5 have that dignity and severity of expression which we admire in his paintings, of which we show one example, "Reading the Newspaper," Fig. 12. Many of Leibl's portraits look a trifle prosaic. It is simplicity carried to a point where it became uninteresting.

In the beginning of his career he lived in Paris, and was much influenced, even as Whistler, by the works of Stevens. We notice it plainly in the "Parisienne," painted in 1869 (Fig. 10). It was really Stevens, and, before him, Courbet, and, after him, Monet, who revived the flatness of tones for which Velasquez was specially noted. Leibl at this time also showed a strong preference for the line drawings of Holbein. Fig. 9 is an excellent example of this accentuation of line. Although a modern peasant girl, as may still be seen on rural holidays in the suburbs of Munich, she looks as if she had been painted four hundred years ago. It resembles a veritable Holbein. The linework is exceedingly realistic, not the slightest bend or break in the contour has been neglected, but the result is beautiful. The Holbein effect can be easily imitated; it is largely due to spacing, the peculiar placing of the head showing the features large, and a mere suggestion of the bust. The background has to be light, the drawing precise and the planes flat.

Figs. 1, 2, and 3 are rather ordinary portraits. In Fig. 1 the management of the cape, which produces an interesting division of black and grays, is clever, but the head is placed too much in the centre. The inclination of the head toward the left in a way corrects this defect, but it needed some larger spot of white than the feather in the hat to counterbalance the large middle tint planes of the cape. Also Fig. 2 is poor in composition. The hand in the lower left corner looks stiff and was hardly necessary. The interest centres entirely in the face, and I believe the effect would have been more dignified without the hand. The outlines of the shoulders are entirely lost, but perhaps only in the reproduction, so I won't criticise it, as the tonal quality is good.

In Fig. 3 we encounter an interesting "connecting link" in the arm of the chair. The face and the two hands form a triangle, but it is rather high up in the picture. The paper at the lower margin does not help the composition, and there is too little space at the top of the head and the upper margin.

In Fig. 6 Leibl reveals himself as a character reader and depictor of types. It is a matter-of-fact, but very faithful, depiction of a man of the German middle class and the resident of some pro-

vincial town. The pipe, the particular attitude, the wrinkled suit of cloth, the curtain, and the view out of the window reflect the entire life of this man. I wish we had more of this in photographic portraiture, although I fear that many clients would object to the accentuation of provincial traits.

In The Artist's Mother we have characterization by line drawing. It is no longer an imitation, like the peasant girl of Fig. 9. It is Holbein modernized. I think it can be done photographically, but only with certain faces that show good drawing, and then, of course, the lighting has to be flat and yet strong to bring out the linear characteristics.

A certain dash of handling can be noticed in Figs. 7 and 11. In Fig. 7 it is produced by the blurred effect of the waist; in Fig. 11, by the detailed rendering of the lapels of the coat. In both instances a picturesque impression is called forth by richness of contrast. The background of Fig. 7 is rather unconventional; it is fragmentary, merely a bit of wall with a window, that does not explain itself, but it helps the general loose treatment of the subject. The placing of the head is peculiar in both pictures. They are almost in the centre, in Fig. 7 absolutely so, and yet they look as if they were rather low down. In Fig. 11 it helps to convey the impression that the lady is seated.

The "Parisienne," Fig. 10, is a curious picture. I wonder if a Parisian woman ever dressed that way and smoked a long clay pipe! At all events, the picture looks old-fashioned. Nothing gets old more quickly than a portrait which puts special stress upon the delineation of some fashion of the moment. As soon as a dress goes out of fashion it looks old-fashioned. It may look queer and fascinating, but some of the original vitality is gone. Fig. 10 is interesting for the diagonal placing of the body and the successful handling of a large black plane, which occupies one-half of the entire area of the picture.

Masterpieces of portraiture among our illustrations are Figs. 4 and 5. There we have character simply told. They impress me very much in the same way as the colotypes of David Octavius Hill. We seem to have met these people. Their expression is so direct and virile. I consider Fig. 4 particularly successful. All I object to is the hand holding the glove. It almost looks like a money-bag. The hand was needed as a spot, but the glove could easily have been left out. The light spot in the lower left corner is really too big, and yet the movement of the hand, tightening into a fist, in a way seconds the determined expression of the face. The waistcoat, the face, and the two hands make an excellent spot arrangement within the dark tonality.

Also the hand with the book, in Fig. 7, was not absolutely necessary. It detracts from the face. It is well posed and full of character, but too large.

"Reading the Newspaper," Fig. 12, is an unusual composition. It is impressionism carried out in scrupulous detail. The irregular placing of the furniture, the depth of the room showing the two women in smaller dimensions, is very curious. Masterly representations of interiors in photography, that are not mere backgrounds, but suggest space and atmosphere, are most desirable. Clarence H. White was one of the few who solved the problem in his "Eben Holden" series. The composition of Fig. 12 is particularly noteworthy for the clever handling of straight lines and rhomboid shapes, also for the concentration of darker masses toward the centre, relieved as it is by clever light spotting of the newspaper, the shading, the light on the forehead, the shirt sleeve of the peasant girl to the left, and the face and folded hands of the other ones. The principal point of interest is furnished by the newspaper.

It tells the story, but at the same time not so prominently that it would not permit of introducing legitimate portraiture, not only in the principal figure of the man, but also of the two girls in the background. In that respect, aside from sentiment, arrangement, and technical charm, it is quite a remarkable, and surely most interesting, performance, of special import to home portraitists.

GOOD ADVERTISING.

Our remarks in the last issue on advertising brought us quite a number of good examples of newspaper advertising, of which the one reproduced here we consider the best.

The original of our illustration occupied a space of seven inches by fifteen inches, which makes quite a respectable dent in a newspaper full page.

You will observe that the picture occupies a large proportion of the space, and, as explained by the advertisers, the study of the girl is to show what they can do with figure and pose—newspaper halftones will not show lighting effects to good advantage.

The advertisers' claim, that they have brought art into photography, has not to be taken on their word alone. The figure study shown is cleverly managed and would do credit to any studio. It would do for a "Tragic Muse" in classic style.

The appeal is made on behalf of straight photography—nothing garish, weird, or imaginative is turned out from this studio.

The claims are positive, and leave the reader in no doubt as to who are the best photographers within a hundred miles and whose work is the equal of any produced in the whole of the United States.

The members of this firm may not be canvassing for votes to get themselves elected into an Academy of Photography, but, judging by the prices asked, they must be building a very healthy bank account. We particularly like their last paragraph, quoting prices from $12.00 to $125.00 per dozen, any of which may be further increased by hand-worked backgrounds when desired.

On the whole, it is a clever piece of advertising and would undoubtedly bring business.

SULPHIDE TONING OF BROMIDE PRINTS. A RANGE OF TONES FROM BLACK TO RED.

(Concluded from page 465.)

SIMPLICITY and certainty are essential qualifications for any process of toning for ordinary use, and the following methods of varying the one in the sulphide process involve no additional operation or alteration in the manner of working.

For convenience in combining solutions in definite proportions, I have adopted in my own practice a uniform strength of 4 grains to an ounce of water for each of the active agents employed. This is sufficiently strong for satisfactory working, and there is no risk of the frilling and blistering that stronger solutions tend to produce.

BLEACHING SOLUTION A.

Potassium ferricyanide	4 gr.
Potassium bromide	6 gr.
Water	1 oz.

This is conveniently prepared as required from the following stock solution:

Potassium ferricyanide	1 oz.
Potassium bromide	1½ oz.
Water, sufficient to make	9½ oz.

Ten minims will contain 1 grain of potassium ferricyanide. This solution will keep indefinitely.

BLEACHING SOLUTION B.

Mercuric bromide	4 gr.
Water	1 oz.

This may be prepared in the form of a stock solution, which will keep indefinitely.

Bichloride of mercury	120 gr.
Potassium bromide	120 gr.
Water	10 oz.

Forty minims contain 1 grain of mercuric bromide. In a stronger solution the mercury has a tendency to crystallize in cold weather.

Bleaching solution A is the ordinary solution used for converting the image to a haloid salt for sulphide toning. There is no practical difference, and consequently, no advantage, in substituting other haloids for the bromide given in the formula. Prints developed by the formula given, and then bleached in this solution, and afterward darkened in a plain solution of sodium sulphide, are a very fine rich brown, without the slightest trace of purple. The tone may be very considerably modified by the addition of various proportions of solution B. This modification is always toward black, consequently any shade of color between black and the brown tone produced when the ferricyanide solution is used alone may be obtained with certainty. In all cases there is an entire absence of a purple tone; the color is always a brown black or a brown, very rich in character and pure in color.

Details of working and formulæ giving the proportions necessary for obtaining the different shades of color will illustrate more clearly the method of combining the two solutions.

BLEACHING SOLUTIONS.

No. 1.—Color, rich warm brown:
Solution A.

No. 2.—Color, dark brown:

Solution A	5 to 7 parts.
Solution B	1 part.

No. 3.—Color, a deep brown, almost a brown-black:

Solution A	3 parts.
Solution B	1 part.

No. 4.—Color, brown-black:

Solution A	2 parts.
Solution B	1 part.

No. 5.—Color, pure black:

Solution A	1 part.
Solution B	1 part.

The darkening solution for all these is:

Sodium sulphide	4 gr.
Water	1 oz.

This is conveniently kept in the form of a stock solution.

Sodium sulphide	1 oz.
Water	9¼ oz.

Ten minims contain one grain of sulphide.

If pure sodium sulphide is employed, the solution prepared with hot water, and after standing for about twenty-four hours, carefully filtered, it will keep indefinitely. Forty minims of this solution added to each ounce of water required will form the working solution.

There are two or three precautions necessary when using mercury as an addition to the bleaching bath. The prints after bleaching must be washed in several changes of water, and then in two or three changes of water to which a little hydrochloric acid has been added —1 dram of acid to 10 ounces of water is sufficient—and then three or four more changes of plain water before they are treated with the sulphide solution. The object of the acid bath is to prevent the mercury from combining with the gelatine, a combination for which there is a very great tendency. Such a combination would be very detrimental to the stability of the print. The bleached image shows a decided change in the acid baths; it becomes so light as to be almost invisible. This change has no influence on the final color of the print. When using the combined solutions of mercury and ferricyanide, it is very important that the prints be completely submerged when first placed in the bleaching bath, so that the action progresses uniformly. If patches of the print remain unbleached while the action is proceeding in the greater part, and these patches are subsequently submerged and bleached, there is a great risk of their being slightly warmer in tone when the print is finished.

Mercury has a strong intensifying action on the print, and in using bleaching solutions 4 or 5, allowance must be made for this strengthening. To a lesser extent it applies to solution No. 3 also, but in No. 2 this action is so slight that it may be disregarded. When using Nos. 4 and 5, the print must be developed to a lesser degree than usual. It is difficult to describe the extent to which this allowance must be made, but in using solution 4 the print should have all the details throughout the scale in correct relation to each other, but the darkest tones should be a deep gray rather than a black, and the print should look rather weak. For solution 5 the print should look very weak, not more than half the strength necessary for producing the best effect. Consequently, in developing prints that are intended for toning to a brown-black, the development must be so curtailed that the strengthening action of the toning solution will simply bring the print to the necessary degree of vigor and contrast for securing the best effect.

This strengthening action provides a very simple method of improving weak prints. A print that has too little vigor or contrast, either by reason of the defective character of the negative or through errors of judgment, in making the print, may be treated with solution 4 or 5, according to the degree of strengthening required, and a very satisfactory result obtained, when, without such treatment, the print would be valueless. Prints that are weak through

under-exposure will yield a slightly colder tone than that produced by treating normally exposed prints in the same bath. Over-exposed prints will be distinctly warmer.

Soon after the introduction of sulphide toning, the fact was published that sodium sulphantimoniate—Schlippe's salt—might be substituted for sodium sulphide for darkening the bleached image. A solution may be prepared in the same manner as that described for sodium sulphide. When the solution is filtered a dark precipitate will be found on the filter paper, and the clear solution will be a pale straw color. It will keep indefinitely. The working solution should be:

Sodium sulphantimoniate . . .	4 gr.
Water	1 oz.

This is prepared by taking 40 minims of the stock solution for every ounce of water.

When this solution is used for darkening the prints, bleaching solution No 1 is the only one that should be used. Mercury must not be employed on any account. There is no advantage to be derived from its use, but a very strong tendency to yellow staining.

Prints bleached in solution 1—the simple ferricyanide and bromide—and then darkened by means of sodium sulphantimoniate, tone to a red color, almost as bright as red chalk carbon prints.

The sulphide and sulphantimoniate solution may be combined in various proportions to produce tones intermediate between those given by either solution used alone. Details and formulæ giving the proportions necessary for obtaining the different shades of color will illustrate more effectively the result of combining the two solutions. It is understood that the prints must be treated with bleaching solution No. 1 only for obtaining these colors.

DARKENING SOLUTIONS.

No. 1.—Color, rich warm brown:

Sodium sulphide	4 gr.
Water	1 oz.

No. 2.—Color, red chalk:

Sodium sulphantimoniate . . .	4 gr.
Water	1 oz.

No. 3.—Color, red-brown:

Solution 2	7 parts.
Solution 1	1 part.

No. 4.—Color, very warm brown:

Solution 2	4 parts.
Solution 1	1 part

No. 5.—Color, warm brown:

Solution 2	2 parts.
Solution 1	1 part.

When using sodium sulphantimoniate for darkening the image, it is very desirable that the prints should be freely exposed to daylight while in the darkening solution, or in the first washing water after darkening. By this means the brightest red color is obtained.

In all sulphide toning, although the working is very simple and very certain, it is necessary that each operation should be carried out most carefully and systematically in order to obtain uniform and successful results. It is also essential that the prints should be well washed between each part of the process.

The bleaching of the image must be very thorough. The print should be left in the solution for some time after it has bleached fully on the surface; it is important that the whole of the silver which forms the image chould be transformed into the haloid salt. If the bleached print be exposed to strong daylight for any length of time it will darken slightly, and the final tones will be a little deeper; but the difference in the final tone is very slight. It is desirable, however, to protect the prints from the action of a strong light by keeping them face downward while in the bleaching solutions and the following washing

waters, or else take care that they are exposed entirely to the light. A print lying face upward and partially covered by another print will show a sharply defined line where the protection from the action of light terminates.

The action of the sulphide solution must be very thorough. The bleached prints change color very rapidly when placed in the sulphide, the darkening being apparently completed in about a minute. It is, however, very desirable to leave the prints in the solution a much longer time than this in order that the conversion of the silver haloid into sulphide may be thoroughly completed. In a solution of the strength given, the prints should remain at least five minutes.

Prints that are intended for toning should be made rather strong in the first instance. For warm brown or red tones they should be made very strong. They do not actually lose in depth in the toning operation, but a brown print always appears to be lighter than a black, if the two are printed to the same depth. The extra depth should be obtained by giving a slightly longer exposure and full development.

Naturally, with most photographers the question of permanence will arise in regard to prints treated by the methods described. If all the work is carried out carefully, with a reasonable amount of washing after each process, the results should be perfectly stable.

In conclusion, the methods of obtaining the various shades of color are given in the form of a table. It should, however, be recognized as a general principle that a small proportion of mercury added to the ferricyanide solution for bleaching prints that are to be darkened with sodium sulphide exerts a very strong influence on the final tone. One part of mercury to sixteen of ferricyanide is sufficient to produce a distinct difference. In the same manner, a small proportion of sodium sulphide added to the sulphantimoniate solution will also modify the tone given by the sulphantimoniate very considerably. When equal quantities of the two salts are used the tone is practically the same as that given by the sulphide alone.

In the table the name of each substance is given, and the proportionate quantities. The names refer to the solutions previously specified, but the proportions are the quantities of each solid salt. Most workers will probably prefer to mix a working solution direct from the stock bottles by taking the requisite quantity from each. In the mercury solution, 40 minims contain 1 grain of the salt; in all the others, 10 minims contain 1 grain.

Color.	Bleaching solution.	Darkening solution.
Black . .	Ferricyanide, 1 part; mercury, 1 part.	Sulphide.
Brown Black.	Ferricyanide, 2 parts; mercury, 1 part.	Sulphide.
Very deep brown.	Ferricyanide, 3 parts; mercury, 1 part.	Sulphide.
Dark brown.	Ferricyanide, 5 to 7 parts; mercury, 1 part.	Sulphide.
Rich warm brown.	Ferricyanide.	Sulphide.
Warm brown	Ferricyanide.	Sulphide, 1 part; sulphantimoniate, 2 parts.
Very warm brown.	Ferricyanide.	Sulphide, 1 part; sulphantimoniate, 4 parts.
Red brown.	Ferricyanide.	Sulphide, 1 part; sulphantimoniate, 7 parts.
Red chalk.	Ferricyanide.	Sulphantimoniate.

In all cases a working solution containing approximately 4 grains of the combined salts in each ounce will be found very satisfactory in practice, though considerable variation in strength may be made without loss of quality.—HENRY W. BENNETT in *Amateur Photographer.*

MOVING PICTURES IN NATURAL COLORS.

MOVING pictures projected on the screen in natural colors by the agency of light only had their first public demonstration in America at a recent meeting of the New York Electrical Society, in its lecture room, at 29 West Twenty-ninth Street. Into the coloring of these pictures no handwork, stencil work, or similar method enters.

The colors lie latent in the film, and are brought into visibility at the moment of exhibition. The process by which the films are sensitized and projected on the screen is known as kinemacolor, the invention of Charles Urban and George Smith, Englishmen, who experimented for several years in London.

The kinemacolor films are not yet on the market here, but that is said to be a matter of only a few weeks. Gilbert H. Aymar, the General Manager of the company which will produce them here, lectured at the demonstration last night. His first film was a series of bowls and vases of flowers, the bouquets being revolved so as to be seen on all sides—pansies, golden rod, gladioli, lilies, showing every color in the spectrum. At first the audience applauded vigorously, but later settled down to watch and to ask questions.

The film for these pictures must go through a special process of sensitization, and a two-color screen, red and green, is fitted both to the camera and to the projecting machine. In addition to this the pictures must be taken at double the ordinary rate, which involves equal speed on the part of the projecting machine, so great a speed, in fact, that hand operation is impossible, and the demonstration last night was accompanied by the hoarse roar of a small motor.

Every once in awhile Mr. Aymar directed the operators to remove the color screen from the machine, and the sudden return to black and white pictures was very effective. It was particularly illustrative in a scene of motor and sailboating.

One of the most successful views was of a big orange being cut open in a man's hands. The flesh tints of the hands and the rich color of the orange were effective enough, and the applause came when the orange was squeezed and the juice trickled out. Another view showed orange trees at the fruit-bearing season. Some of the fruit was green, but Mr. Aymar explained that it was due to an error in the taking of the photograph. He rather thought it was under-exposure.

Besides the greater accuracy of the kinemacolor process, it has the advantage over hand coloring in greater speed of production. Coloring the films means skilled craftsmen and much labor. The invention already has been exhibited in England and has been used in the London theatres for some months. It will reach American audiences in midwinter.

It is understood that the perfection of this process is stealing Mr. Edison's fire. At the time of the private exhibition in his West Orange laboratory recently of his talking pictures—the combination phonograph and kinetescope which he calls the kenetphone—he spoke of his expectation to produce before long moving pictures in their natural colors.

A factory for the preparation of the films and the construction of the machines adapted to their projection is being built in Allentown, Pa., and the commercial use of the process in America awaits its completion.

A convertible anastigmat is wasted on a short-focus camera.

OUR ILLUSTRATIONS.

Dr. Arnold Genthe, of San Francisco, occupies a peculiar position in portrait photography. He is an ardent advocate of snapshot photography, and uses in his studio rarely anything but an ordinary hand camera. The rest is done by bromide enlargement to any desired size. The first print is made by himself, or at least under his supervision; the others are executed by his regular help. His patrons do not seem to object to his peculiar style of finishing prints, as he is one of the most fashionable and successful portrait photographers on the Pacific Coast.

There is no doubt that his method reduces labor and expense to a minimum; but how about the result? We have heard many controversies whether a quick or slow exposure is more suitable to the purposes of portraiture; but there is only one opinion on snapshot photography. The general belief is that it distorts the human features, and that it is not reliable as a recorder of likenesses. The average amateur portrait seems to endorse this criticism. But are these shortcomings not largely due to the peculiar light conditions in which these pictures are taken? The amateur snapshots away whenever he feels like it, indoors and in the open, and rarely controls the time and weather conditions of his exposures. Would it not be quite different if the manipulator of the hand camera knew what he was about, if he used a good lens, understood composition and the effects of light and atmosphere?

Dr. Genthe is a master of composition. It is the leading trait of all his work. He does not only see things in a novel way; he also knows how to record them. This is the secret of his success. Moreover, he is an expert in bromide enlargement. He realizes that a bromide print finds its most favorable expression in middle tints, that a combination of decided whites and blacks is almost impossible in this particular medium, and he therefore always strives for an even gray middle tint tonality, that gives a certain elegance and reticent charm to his portraiture. The snapshot exposure and the easy way in which a hand camera can be handled allow him every opportunity to seize his sitters unawares. And as he is a keen observer and a student of character, he finds no difficulty in reproducing the virile human side of personalities in a direct and convincing manner.

THE SIZE OF A LENS.

This is a somewhat curious way of putting it, for we do not mean the actual dimensions in inches of the glasses or the brass barrel, but refer to the covering power and the focal length. The curious way is, however, chosen intentionally, in order to give an opportunity of pointing out that bulk and weight do not necessarily affect either the size of the plate covered or the size of image of a given object on the ground glass. We once met a beginner who thought that a wide-angle lens, because it took in more subject, must of necessity be a larger and bulkier instrument.

What Is "Converging Power?"

The lens, as ordinarily fixed to a camera, produces an image sufficiently large

to cover the whole of the plate or ground glass. That is, the purchaser of a cheap quarter-plate outfit, on focussing up a view, finds that the picture extends to the corners of the ground-glass focussing screen. Under normal circumstances, then, the covering power of the lens is sufficient.

Let us, however, take off the lens and attach it to a 15 x 12 camera; an enlarging camera will do if we cannot borrow a landscape camera for the experiment.

The front of the camera will, of course, be only about 5 inches from the ground glass when the picture is sharp, and we shall find that the image we get is a circular one about 7 or 8 inches in diameter. At the edges of the focussing screen we get no image at all, and therefore no light.

Now we have some indication of the covering power of the particular lens we are experimenting with. It will cover the quarter-plate but not the 15 x 12. If we carefully examine the disk or round image on the large focussing screen we shall find that the definition is much better in the centre than at the edges. We shall also find the image is brighter in the centre than at the edges. The definition falls off toward the edges of the image because the lens is not corrected for astigmatism and curvature of field, but if we stop down to possibly *f*/16 or *f*/22, reasonable sharpness of definition will be produced up to the edges of the image. Still, this stopping down will not increase the size of the disk. If, however, we carefully examine the brightness at the centre and on the edges of the disk, we shall find that much greater equality exists. Why is this?

Equality of Illumination.

Let us open the lens to the full aperture, say *f*/8, and turning back the ground glass, place the eye—one eye only, closing the other—opposite the lens. The full aperture appears as a circle. Now move the eye slowly toward one corner of the camera back and notice what change takes place in the apparent shape of the lens aperture. The circular shape gradually changes to an ellipse, which soon, owing to the ends of the lens barrel interfering, becomes narrower and more lozenge-shaped, until, before the eye reaches the corner of the camera back, no direct light can be seen at all.

The quantity of light received by any portion of the plate is, of course, proportional to the size of the aperture as seen from that portion, and when the eye can see no direct light we have reached that part of the plate on to which the lens projects no image. Now repeat this when the lens is stopped down to *f*/22, and it will be found that the eye can be moved a considerable distance from the centre toward the corner before any part of the small circle of light seen through the *f*/22 aperture is obstructed by the mount.

Wide-Angle Lenses.

It will be clear, then, that if a lens is required to have great covering power, its barrel must be short. In other words, the two glasses, the front and the back combinations, must be mounted close together. If we compare an ordinary lens and especially an old-pattern rapid rectilinear, with a wide-angle rectilinear, we shall find that this is what the optician does.

This close mounting tends to increase the curvature of field, however, and in order to prevent the worker using the lens at too large an aperture and then condemning it for poor marginal definition, the stop *f*/16 is usually the largest one provided. Most of the modern anastigmats have their combinations mounted close together in a short barrel, and consequently have great covering

power, but with them, as both anastigmatism and curvature of field are practically eliminated, the larger aperture of *f*/8, or even *f*/6, is available.

What Plate Will It Cover?

This question, asked of a lens, is fairly easy to answer. To go back to our quarter-plate lens, we may measure the diameter of the disk of light on the ground glass of the 15 x 12 camera. Supposing this to be 8 inches, draw a circle of this diameter on a sheet of paper. Now the lens will cover any plate which can be laid inside this circle. A half-plate will extend beyond it a trifle at each corner, so that the lens will not cover a half-plate. A 5 x 4 plate will go inside the circle, as will a quarter-plate, the lens covering either of these sizes easily.

But now, raise the front of the 15 x 12 camera and note that the disk of illumination on the ground glass is raised at the same time. It will be quite evident then that we must have an excess of covering power, so that we may adjust our image on the plate, the position of which in our camera is fixed by raising or lowering the front carrying the lens. In cases where there is not this excess or reserve of covering power, raising of the lens frequently produces dark corners in the sky of the picture.

The Focal Length.

Focal length has not so much relation to covering power as it used to have in the pre-anastigmat days. It was then fairly generally understood that the focal length was about equal to the diagonal of the plate. If shorter than this, *i. e.*, about 5 inches for one-quarter plate, 6 inches for 5 x 4 plate, and 8½ inches for half-plate, there was insufficient covering power, and for shorter foci, lenses of the portable symmetrical or wide-angle symmetrical type were necessary.

With modern lenses, however, there is, as has already been said, a reserve of covering power, and the lens may be chosen of a suitable focal length with reasonable certainty of covering the plate. Thus, a 5-inch anastigmat which may be the normal lens on the quarter-plate camera can be used on a half-plate with confidence, which we saw could not be done in the case of the rapid rectilinear.

A rough and ready rule for determining the foci to be used on any size plate is, for a wide angle, the shorter dimension of the plate, for a normal angle, the diagonal, and for a narrow angle or long focus lens, the length and width of the plate added together. In the case of a half-plate the three lenses would approximately 5 inches, 8 inches, and 11 or 12 inches focus, respectively.

DANGER FROM USE OF ARTIFICIAL LIGHT.

THE growing use of Cooper-Hewett tubes, car lamps, tungsten filament lamps, and the new Kelco light for photographic purposes presents an entirely new condition which must be considered in addition to the other perilous things with which the photographer has to do.

In this electrical age ocular hygiene is an accepted problem and many learned men have given voice to the troubles which follow prolonged exposure to artificial light.

Particular attention should be directed to an investigation recently brought to the attention of the French Ophthalmological Society by Professor Gariel. It is a study of the effects of artificial light upon the eye, with special reference to the ultraviolet radiation to which many injuries to the eye have been ascribed,

perhaps with some lack of discrimination. There is no doubt that certain radiations of very short wave-length may do serious mischief to the visual organs, but it is hardly clear as yet that one can definitely assign to a particular region of the spectrum all the troubles to which the eye falls victim. In drawing up an indictment of the ultraviolet, some counts against the visible spectrum may probably be found. There is no doubt at all that serious damage may also follow too long or too energetic exposure of the eye to ordinary light. After every solar eclipse oculists have occasion to treat a certain number of cases of grave injury due to over-exposure of the eye to the solar rays, either directly or with intensity enhanced by the use of telescope or fieldglass. Some ot these cases involve merely inflammation and temporary scotoma; others, a permanent scotoma, the retina being locally damaged beyound repair by the violence of the photo-chemical action produced. Now, such injuries must be charged to ordinary light, since, in the first place, a telescope objective presents a sufficient thickness of usually dense flint glass to block the ultraviolet rays; and, second, the permanent damage is retinal, while there is considerable evidence ably marshalled by Dr. Gariel to show that the media of the eye themselves absorb the ultraviolet rays.

It is unsafe to work long about an electric arc, even when the eyes are protected by glasses quite competent to cut off totally the extreme ultraviolet. In other words, there is not the slightest doubt that the eye can be injured or ruined by too great access of energy in the form of ordinary light, and that the damage thus done is quite as much to be feared as that produced by any other form of radiation. We lay special stress on this phase of the matter since the tendency of some of the recent literature has been so to accentuate the dangers of the ultraviolets as to withdraw attention from the ever present risk of injury from ordinary glare.

Professor Gariel, in taking up the study of the effect of the shorter radiation, directs especial attention to the way in which they are absorbed by the crystalline lens of the eye, an absorption which is very plausible and believed to lead to its damage. He gives a *résumé* of the very interesting studies of Chardonnet, Gayet, and others on the aphakic eye—that is, lacking the crystalline lens—indicating how this lens strongly absorbs the rays transmitted by a thin silver film while the other media of the eye transmit them. For this reason the aphakic subjects could see the ultraviolet rays from the electric arc. Gayet in particular went further, and showed that the young eye of a ten-year-old subject possessed still a lens transparent enough to see the arc through the silver filters. In later life the lens grows yellow, so that in the case of the old it is not easy to see the H and K lines of the solar spectrum. In this case, nearly the ultraviolet must be absorbed, so that the rays of wave length just outside the visible spectrum may still be culpable. Glassworkers' cataract, for example, seems quite as likely to be due to these supposedly harmless rays as to those further in the ultraviolet, which must be relatively weak at the temperature of molten glass. Too great an access of energy to the eye is dangerous to a high degree, whatever its wave length.

There is undoubtedly, however, a type of injury somewhat resembling an x-ray burn which is specifically due to rays in the extreme ultraviolet. The effect is a very characteristic one in that it comes on violently some hours after exposure; and, while producing great pain and severe inflammation, it affects the frontal media of the eye rather than the retina, and in all but the severest cases ends in complete recovery.

Professor Gariel classifies the commercial illuminants in the following order as regards proportion of ultraviolet rays: Oil lamps, petrol lamps, electric incandescents, Welsbachs, acetylene, mercury arcs, ordinary arcs. He finds that the ultraviolet is practically cut off by medium shades of yellow glass used as shades or spectacles, and advises the free use of the former in shading very brilliant lights. As regards the general requirements for illumination, Professor Gariel is quite in accord with the trend of present practice. He advises an illumination of at least 15 lux as a minimum for good lighting, and strongly advises the *effective diffusion of the light from intense sources. He strongly favors the electric incandescent as the basis of lighting.—Photographic News.*

COLOR PLATE MAKING.

In the application of the three-color printing process, which gives even now real satisfactory results when done by skilful hands, there are four factors which play an important part, viz.: the sensitizing, the selecting filters, the black print, and the color.

We must admit that much is yet to be desired in these four important factors in the production of three-color pictures, by means of the printing press; and that considerable finishing has to be done if one wishes the reproduction to be a fair representation of the original.

Up to the present time we are not able to avoid all the faults which are inherent to the above-mentioned factors. The result is that the greater part of the work must be left for the skilful hands of an artistic craftsman, if good results are expected.

That we have no infallible system for this kind of work up to the present time is proven by the fact that different methods prevail in almost every art printing establishment; and, further, that wrong principles are followed, and that the greatest weight is and must be placed on these factors. As a rule, the making of the three partial negatives is in the hands of some one who is completely unable to cope with this difficult problem, and who has not the slightest inkling of this subtle process, and who believes, of course, that his worse than superficial knowledge of the subject covers the entire field. Such people are generally averse to good innovations. They want absolutely nothing to do with such things, and go on working in the same old rut. This is universally the case, but no one cares to admit it.

Our aim must be to eliminate as much as possible all handwork, which, at the present, plays such an important part in the three-color printing process.

Let us see to what extent we are able to do so.

The sensitizing reagents which at the present are at our disposal do not entirely meet the requirements of the work. The sensibility for blue-green is entirely absent, and the slight sensibility for red gives us further considerable difficulty. Until we have removed this difficulty, that is, until we have proper methods of sensitizing, we cannot hope to establish a rational system of three-color printing.

An absolute requirement is that but one sensitizing reagent shall be used for the three plates, and that the development of the three exposed plates shall take place at the same time and for an equal length of time.

This is the only way to get some certainty in this work.

The difficulties and uncertainties are increased by the use of different

plates and reagents. However, one drawback remains, whichever method is followed, and that is the making of a correct filter for the yellow plate.

All reagents of which we know give the plate a considerable amount of sensibility for yellow, while the sensibility for red is a minimum. The consequence is that practically all red is eliminated by those filters which exclude the yellow satisfactorily. The plate, therefore, is deficient, and this fault cannot be avoided, at least for the present. The filters for the red and blue plates are fairly light and can be made from a great variety of pigments.

A distortion of the tone values is unavoidable when making a black plate negative for etching purposes, and this distortion must be equalized by handwork. This work, however, is very difficult and a part of it impossible, even for the most skilful craftsman. I refer, of course, to a most accurate reproduction of the original. Schulze's method is an improvement on the ordinary black plate process. In this method gratings are used, on which the lines intersect each other at an angle of 60 degrees. With a proper blind (diaphragm), this patented process will produce negatives which, when copied on metal, will yield a copy true to the original and without retouching it. The time required for etching is about ten minutes.

Much has been done in this direction, and it seems very probable that in the near future a certain and simple method may be developed. Even the preliminary work has given some satisfactory results.

In regard to the printing colors, one should try to use only those which give the most neutral tone value. No red with yellow shading—no bluish red, and a blue as pure as possible. Most commercial printing colors do not come up to these requirements, and the result is that the mixed colors are not pure.

This defect and those mentioned above make the three-color printing process so uncertain in its results. We are still far away from an ideal method. I earnestly advise those who make photography their business to study thoroughly the theory of the art, and to read the many publications on this subject. They will then have a better control of the whole thing and will be better able to find and overcome defects.—PROF. G. AARLAND in *Graphic Arts*.

NEW BOOKS.

The Whistler Book. A Monograph of the Life and Position in Art of James McNeill Whistler, together with a Careful Study of his More Important Works. By SADAKICHI HARTMANN. 266 pages and index, illustrated; cloth binding. Price, $2.50. L. C. PAGE & Co., Boston, publishers.

Mr. Hartmann's *Whistler Book* will be a source of satisfaction to every one interested in Whistler—the work he did and the life he led. This book covers both, and gives us an insight into the life of a great artist and a most peculiar man. It is a far cry, perhaps, from Whistler to photographic portraiture, but every professional photographer who is sure he is an artist as well as a photographer, could learn many things from *The Whistler Book*. The chapter on "The Butterfly," for instance, will be worth the attention of every man who puts his signature to a print. Whistler's many and original methods of keeping himself before the public are of more than ordinary interest to a class who must, perforce, attract the public's attention. The illustrations, of which there are some fifty-seven, include many full-length portraits. It is distinctly a book that the photographer should read, mark, learn, and inwardly digest.

The Art of the Munich Galleries. Being a History of the Progress of the Art of Painting. Illuminated and Demonstrated by Critical Descriptions of Great Paintings in the Old Pinakothek, the New Pinakothek, and the Schack Gallery in Munich. By FLORENCE JEAN ANSELL and FRANK ROY FRAPRIE. 430 pages, illustrated with forty-eight full-page plates in duogravure; decorative cover. Boston, L. C. PAGE & Co.

This is the latest addition to the "Art Galleries of Europe" series, and should naturally find its way into the library of every photographer, especially those who are unable to take trips to Europe to study the Old Masters in the original. Miss Ansell and Frank Roy Fraprie have, between them, made an interesting and instructive tour through the Munich galleries. The histories of the three great galleries are given, followed by critical descriptions of the individual pictures, and to those unable to see the pictures themselves, the book offers a very satisfactory substitute. The illustrations include reproductions of the world's great portraits, from which the photographer can yet learn many things.

TRADE NOTES.

WITH the increasing use of developing papers and the consequent demand for better facilities for printing, it is a little remarkable that inventors and manufacturers of the several printing machines on the market have never gotten beyond the hand-lever or foot-treadle device. They seem to expect the photographer to be content with facilities no better than Benjamin Franklin had in type printing in his day, now antiquated and obsolete. Such devices will go to join the common printing-frame now that the photo autopress has made its appearance, bringing modern facilities such as electric motor drive, automatic paper feed and register, automatic contact, and uniform timing of prints. The Photo Autopress marks the greatest advance made in photographic printing since the introduction of developing papers and is a wonder of inventive genius and mechanical perfection. One operator with the Photo Autopress can do more work and do it better than three operators with any hand device on the market today. This is the claim of the manufacturers, and they give everyone the opportunity of testing the machine before purchasing. A descriptive booklet will be sent you on request by the G. M. Dye Printing Machine Co., 320 Third Ave., So., Minneapolis, Minn.

THE C. P. Goerz American Optical Co. wish to announce that they have removed their offices and factory from 79 East 130th Street to 317–323 East 34th Street, New York. This very central location will enable them to serve their many customers better and will undoubtedly increase their business. The location is very handy for the two great railroad terminals and very convenient for out-of-town visitors.

On Developing Tanks is the title of an illustrated booklet just issued by G. GENNERT, 24 E. 13th Street, New York. Tank development is now the accepted method of development, so that it is not a question of tank *vs.* tray, but only a question as to which tank. If you are on the market, you had better write for this booklet and learn something about the prize reversible developing tank made by G. Gennert.

THE *Wellcome Photographic Exposure Record and Diary for* 1911. The *Wellcome Exposure Record* is one of those handy annuals which the photographic public have learnt to expect at this season of the year, and one which has established a permanent position in their esteem by its remarkable utility and the compact mass of information it contains. Each year its pages constitute a very faithful and up-to-date index and guide to the present state of the science and art of photography.

In this handy pocket volume, under the title of "Modern Photographic Methods," the problems with which the photographer has to deal are explained and illustrated in a series of brief, succinct, and lucid articles.

Inside the cover a special device, called the "Wellcome" Exposure Calculator, is fitted. This consists of a revolving circular disk, which, when certain factors, such as those for the plate and subject, are known, will enable the correct exposure to be determined by a single turn of the scale.

The *Wellcome Exposure Record* may be obtained from any photographic dealer. Price, 50 cents; or, post free, from this office for 54 cents.

Photograms of the Year 1910.—An unusually well printed and illustrated number this year, is out and can be had at your dealers. *The British Journal Almanac*, 1911, and the *American Annual*, will be ready in a few days. These popular annuals have acquired a habit in recent years of going out of print soon after publication, and many photographers have been disappointed in not being able to secure their copies. Drop a postal card to your dealer and tell him to send you a copy of each as they appear. You want them all, and will enjoy them when the Christmas rush is over.

Too little attention is most generally paid to the quality of the sodas used in developing. Cheap sodas, that are not chemically pure, are dear at any price. Select a good brand and stick to it for uniform results. The G. G. sodas—carbonate and sulphite—put up by G. GENNERT, will give you clean developing paper prints and brilliant negatives, and the price is little more than you would pay for inferior, unreliable goods.

WILSON'S PHOTOGRAPHIC MAGAZINE

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EDITOR'S TABLE.

IN the epoch-making exhibition of photographs now being held at the Albright Art Gallery at Buffalo, Mr. Alfred Stieglitz has gathered together the greatest collection of photographs that the world has yet seen, and in its display in the Albright Galleries his struggle of twenty-five years to have photography recognized as an art is at last rewarded.

We quote the following from *The Foreword* to the catalogue: "The aim of this exhibition is to sum up the development and progress of photography as a means of pictorial expression. The Invitation Section consists largely of the works of photographers of international reputation, American and foreign, whose work has been the chief factor in bringing photography to the position it has now attained. It comprises a series of 'one-man's shows,' and in many instances these exhibits include a number of prints executed quite recently. The prints in this entire section have been selected because of their intrinsic quality, while many have also the additional interest of marking special stages in its development. In view of the comprehensiveness of this historical survey, the excellence and scope of the work of each individual represented here, and the evidence of the present-day vitality of pictorial photography, this exhibition at the Albright Art Gallery aims at something more thorough and definite than has ever been attempted heretofore in any previous exhibition, either in America or abroad."

There are some 600 prints, by fifty-seven exhibitors, including such workers as DeMeyer, Coburn, Demachy, Steichen, Eugene, Stieglitz, White, Seeley, Kuehn, Henneburg, Craig Annan, Bennington, Davison, and Kasebier.

Elsewhere in this issue, Sidney Allan writes on the portraiture exhibited, and a diagram showing the hanging arrangement is shown. It is unusually effective. Every photographer within travelling distance of Buffalo should make a big effort to see this great exhibition, which, in the nature of things can hardly ever be duplicated.

ONE of the most sociable and delightful dinner parties of the Metropolitan Section of the Professional Photographers' Society of New York took place at Keen's, on the evening of November 5. The chief item on the bill of fare was venison supplied by Chairman Bradley, who had just returned from a hunting trip in Maine. President Bliss was the guest of the evening, and told some of the new features for the next State meeting. Pirie MacDonald was in good trim, and maintained his reputation as a good talker; Papa Core told some interesting stories, and Uncle George Rockwood was in unusual good spirits.

OCTOBER 27, 1910, marked the activities of the Professional Photographers' Club of New York at their new quarters, Terrace Garden, Fifty-eighth Street, New York. They met in goodly numbers in an "Aristo" Competition of Portraits of Men. W. B. Stage, S. Paley, and I. Buxbaum were the happy cupbearers of the evening, and I. Mandelkern, S. Lifshey and M. Stratman came in next. They were awarded certificates of merit. Mr. Hammer, Mr. Mix, and Mr. Wallace were the judges. After quite a strong discussion, the following resolution was almost unanimously adopted:

Resolved, That no member of the P. P. C. of N. Y. shall hereafter give as premium any bromide or other enlargement to less than one dozen photographs.

THE Executive Committee of the Photographers' Association of Iowa met at Voiland's Studio, Sioux City, October 27, and made arrangements for the Twenty-first Annual Convention, which will be held in Sioux City, Iowa, May 2, 3, 4, and 5. This Association is in a very flourishing condition and a good meeting is promised for 1911.

WITH this issue we close the forty-seventh volume of the MAGAZINE, and wish to take this opportunity to thank our readers for their support and interest. They may be sure that it will be our best endeavor during 1911 to make the MAGAZINE even more helpful and interesting than it has been in the past. We hope that those of our readers whose subscriptions expire with this number will advise promptly of their desire to renew the subscriptions. A new post office regulation requires that subscriptions be paid in advance. Your coöperation will be appreciated.

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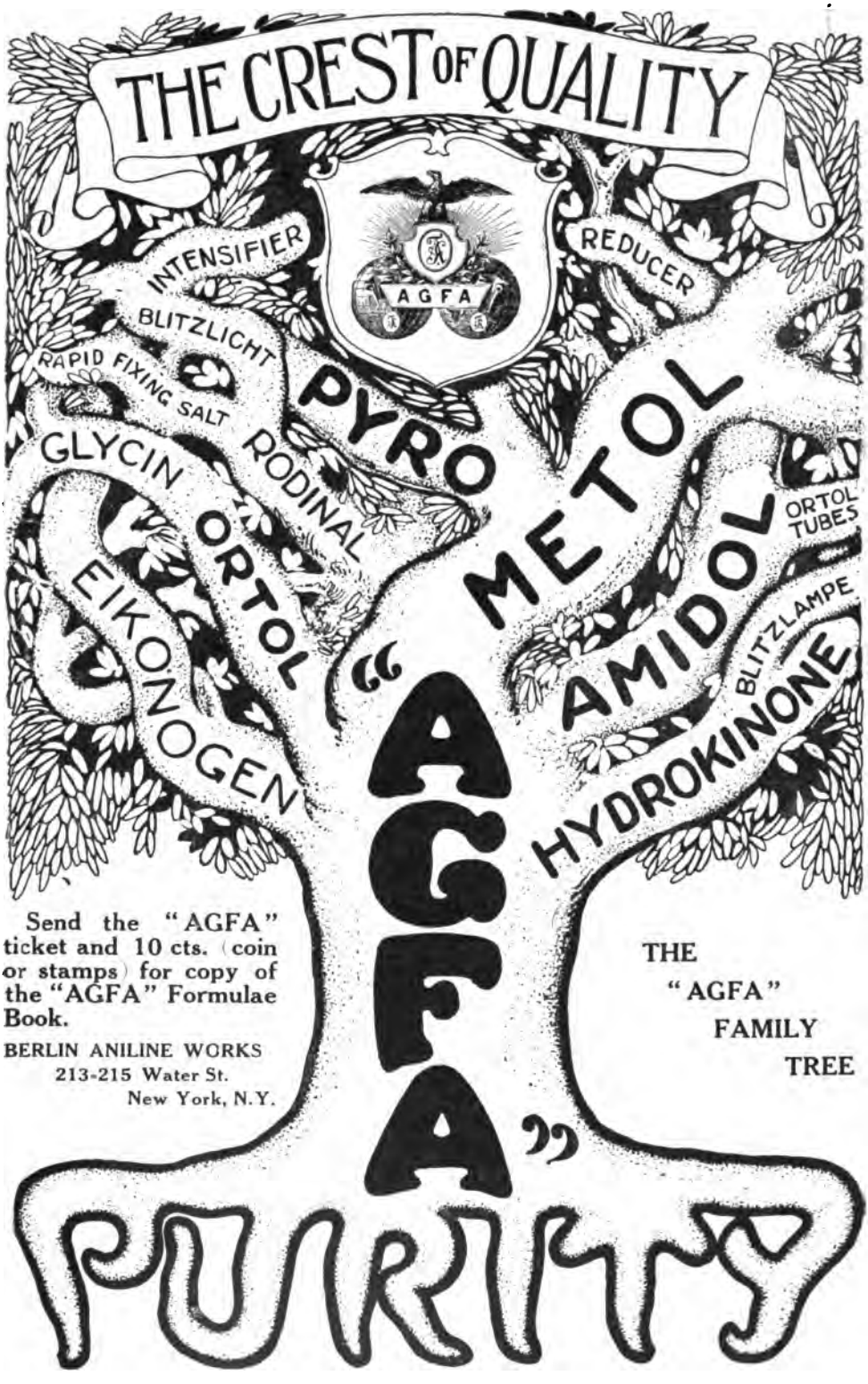
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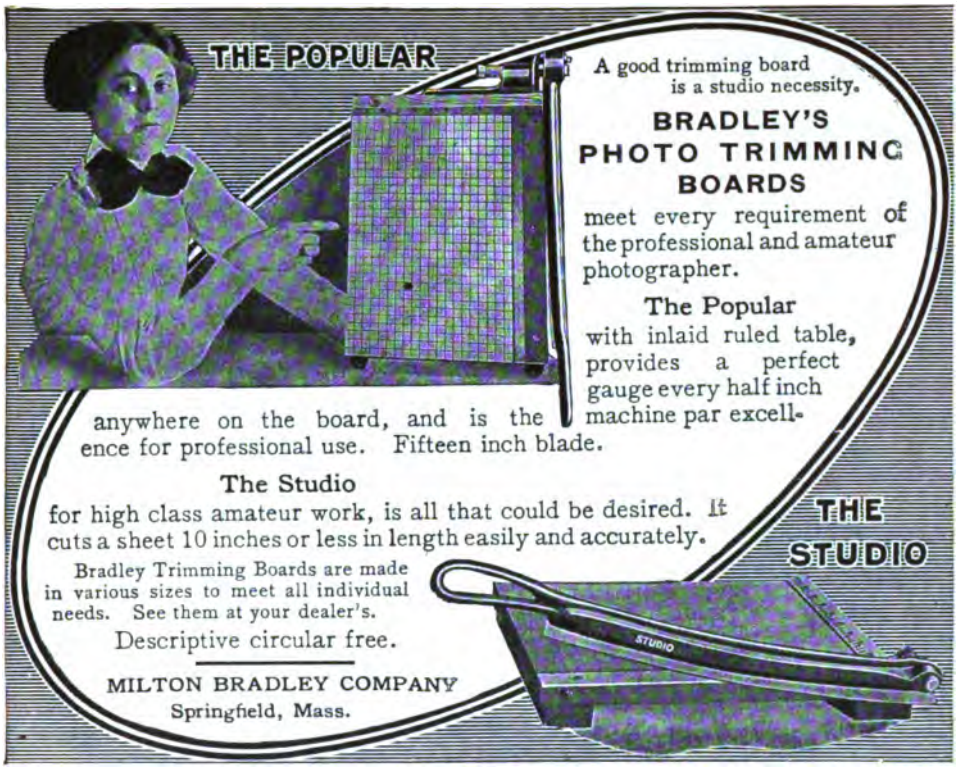

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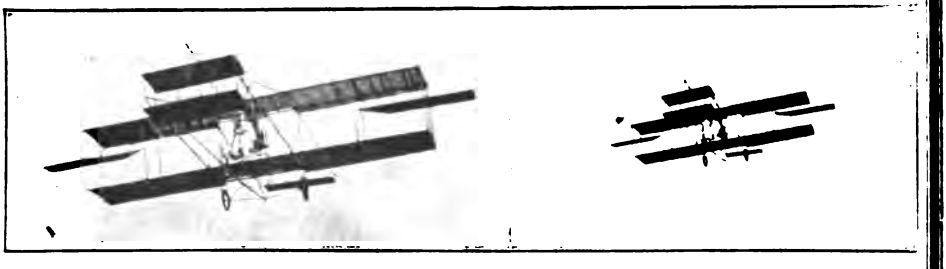

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